SONY®

PRO-BETACAM SP CAMCORDER

UVW-100
UVW-100P

ELECTRONIC VIEWFINDER

DXF-501
DXF-501CE

ZOOM LENS

VCL-713BX

TRIPOD ATTACHMENT

VCT-U14

SERVICE MANUAL

Vol. 2 (1st Edition/Revised 1)

BETACAM SP ™

LITHIUM BATTERY

Replace the battery with a Sony CR2025 lithium battery. Use of another battery may present a risk of fire or explosion.

WARNING

Battery may explode if mistreated.
Do not recharge, disassemble or dispose of in fire.

Note

Keep the lithium battery out of the reach of children. Should the battery be swallowed, consult a doctor immediately.

ADVARSEL!

Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri af samme fabrikat og type.
Levér det brugte batteri tilbage til laverandøren.

ADVARSEL

Lithiumbatteri - Eksplosjonsfare.
Ved utskifting benyttes kun batteri som anbefalt av apparatfabrikanten.
Brukt batteri returneres apparatleverandøren.

VARNING

Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en likvärdig typ som rekommenderas av apparattillverkaren.
Kassera använt batteri enligt gällande föreskrifter.

VAROITUS

Paristo voi räjähtää jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin.
Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

このマニュアルに記載されている事柄の著作権は当社にあり，説明内容は機器購入者の使用を目的としています。従って，当社の許可なしに無断で複写したり，説明内容（操作，保守等）と異なる目的で本マニュアルを使用することを禁止します。

The material contained in this manual consists of information that is the property of Sony Corporation and is intended solely for use by the purchasers of the equipment described in this manual.
Sony Corporation expressly prohibits the duplication of any portion of this manual or the use thereof for any purpose other than the operation or maintenance of the equipment described in this manual without the express written permission of Sony Corporation.

Le matériel contenu dans ce manuel consiste en informations qui sont la propriété de Sony Corporation et sont destinées exclusivement à l'usage des acquéreurs de l'équipement décrit dans ce manuel.
Sony Corporation interdit formellement la copie de quelque partie que ce soit de ce manuel ou son emploi pour tout autre but que des opérations ou entretiens de l'équipement à moins d'une permission écrite de Sony Corporation.

Das in dieser Anleitung enthaltene Material besteht aus Informationen, die Eigentum der Sony Corporation sind, und ausschließlich zum Gebrauch durch den Käufer der in dieser Anleitung beschriebenen Ausrüstung bestimmt sind.
Die Sony Corporation untersagt ausdrücklich die Vervielfältigung jeglicher Teile dieser Anleitung oder den Gebrauch derselben für irgendeinen anderen Zweck als die Bedienung oder Wartung der in dieser Anleitung beschriebenen Ausrüstung ohne ausdrückliche schriftliche Erlaubnis der Sony Corporation.

このマニュアルについて

本書はプロベータカムSPカムコーダー UVW-100のサービスマニュアルVOL.2 です。本書では、ブロックダイヤグラム、マウント図、回路図、半導体、パーツリストを記載しています。

構　成

本書の構成を把握していただくために、全章の概略を以下に説明します。

第10章　BLOCK DIAGRAMS
オーバーオールブロック図、回路ブロックごとのブロック図を掲載しています。

第11章　SCHEMATIC DIAGRAMS AND BOARD LAYOUTS
全プリント基板の回路図およびパターンとシンボル図を掲載しています。

第12章　SEMICONDUCTOR PIN ASSIGNMENTS
使用半導体の外形および、概略の機能ブロックや、ピン名称を掲載しています。

第13章　SPARE PARTS AND OPTIONAL FIXTURES
分解図、電気部品リスト、梱包部品リスト、標準付属品リスト、治工具リストなどを掲載しています。

第14章　CHANGED PARTS
変更した部品のリストと対応シリアルナンバーを掲載しています。

Introducing this manual

This manual is the Service Manual Vol.2 of the PRO-BETACAM SP Camcorder UVW-100 and UVW-100P.
This manual contains block diagrams, board layouts, schematic diagrams, semiconductor pin assingments and parts lists.

Contains

The sections covered in the manual are summarized below to give you a general understanding of the manual.

Section 10　BLOCK DIAGRAMS
Describes the overall block diagrams and the block diagrams for every circuit block.

Section 11　SCHEMATIC DIAGRAMS AND BOARD LAYOUTS
Describes the schematic diagrams and board layouts for every circuit board and frame wiring.

Section 12　SEMICONDUCTOR PIN ASSIGNMENTS
Describes the outlines, system block diagrams and pin assignments of semiconductors used in this equipment.

Section 13　SPARE PARTS AND OPTIONAL FIXTURES
Describes the exploded views, electrical parts list, packing materials & accessories and optional fixtures.

Section 14　CHANGED PARTS
Describes the changed parts list and applicable serial number.

関連マニュアル

本機には、この「サービスマニュアル VOL.2」の他に、下記のマニュアルが用意されています。

- **オペレーションマニュアル（本機に付属しています）**

部品番号：3-758-227-01（和文）
本機を実際に運用および操作するのに必要な情報を記載しています。

- **サービスマニュアル vol.1（本機に付属していません）**

部品番号：9-977-584-11（和文）
本機の保守に関する情報と、部品交換および調整などのサービス情報を記載しています。

Related manuals

In addition to this Service Manual Vol. 2, the following manuals are provided.

- **Operation Manual (Supplied with equipment)**

Part No. 3-758-227-21
Describes how to operate this equipment.

- **Service Manual Vol.1 (Not supplied with equipment)**

Part No. 9-977-585-11 (for UVW-100)
9-977-588-11 (for UVW-100P)
Contains the maintenance information of this equipment, and the information on sevicing such as the replacement of the parts and the adjustments.

目次
TABLE OF CONTENTS

Volume 1

1. OPERATING INSTRUCTION
2. SERVICE OVERVIEW
3. PERIODIC MAINTENANCE
4. REPLACEMENT OF THE MAJOR PARTS
5. LINK SYSTEM ALIGNMENT
6. TAPE PATH ALIGNMENT
7. ELECTRICAL ALIGNMENT OVERVIEW
8. CAMERA ALIGNMENT
9. VTR ALIGNMENT

Volume 2

10. BLOCK DIAGRAMS

Overall(CAMERA) 10-1
IE-33/33P 10-2
PR-208 10-4
ES-7(J)/7(UC)/7(P) 10-6
AT-85 10-8
IF-454 10-10
IF-539
Overall(VTR) 10-11
VO-46/46A 10-12
AU-185/185P 10-16
MB-506
TC-86/86A(1/3)
TC-86/86A(2/3) 10-17
TC-86/86A(3/3) 10-18
SS-57/57A 10-20

11. SCHEMATIC DIAGRAMS AND BOARD LAYOUTS

IE-33/33P 11-2
PR-208 11-6
ES-7(J)/7(UC)/7(P) 11-10
IF-454 11-14
IF-539
AT-85 11-16
VO-46/46A 11-20
SS-57/57A 11-26
TC-86/86A 11-32
AU-185/185P 11-38
DC-62 11-40
DC-63
PA-137(B)(G)(R)/137P(B)(R) 11-42
MB-530/530(P)
CAMERA FRAME(1/2) 11-43
CN-992 11-44
LED-214
SW-654
SW-655
SW-656
CAMERA FRAME(2/2) 11-45
CN-935 11-46
CN-936
KY-285
FE-18
DR-254
SR-55
MB-506
VTR FRAME 11-47

12. SEMICONDUCTOR PIN ASSIGNMENTS

Semiconductor Index 12-1
Diode 12-3
Transistor 12-4
IC 12-5

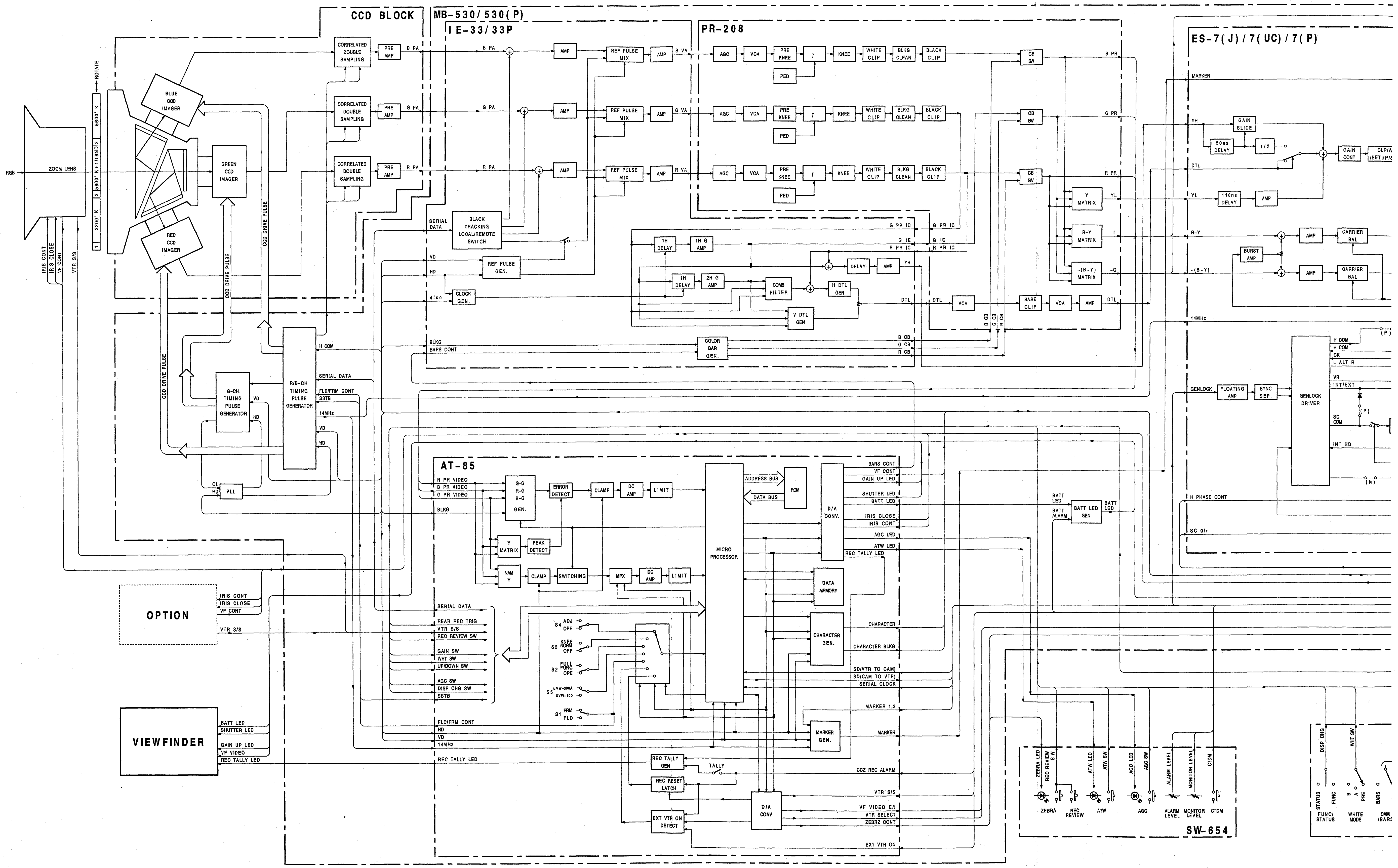
13. SPARE PARTS AND OPTIONAL FIXTURES

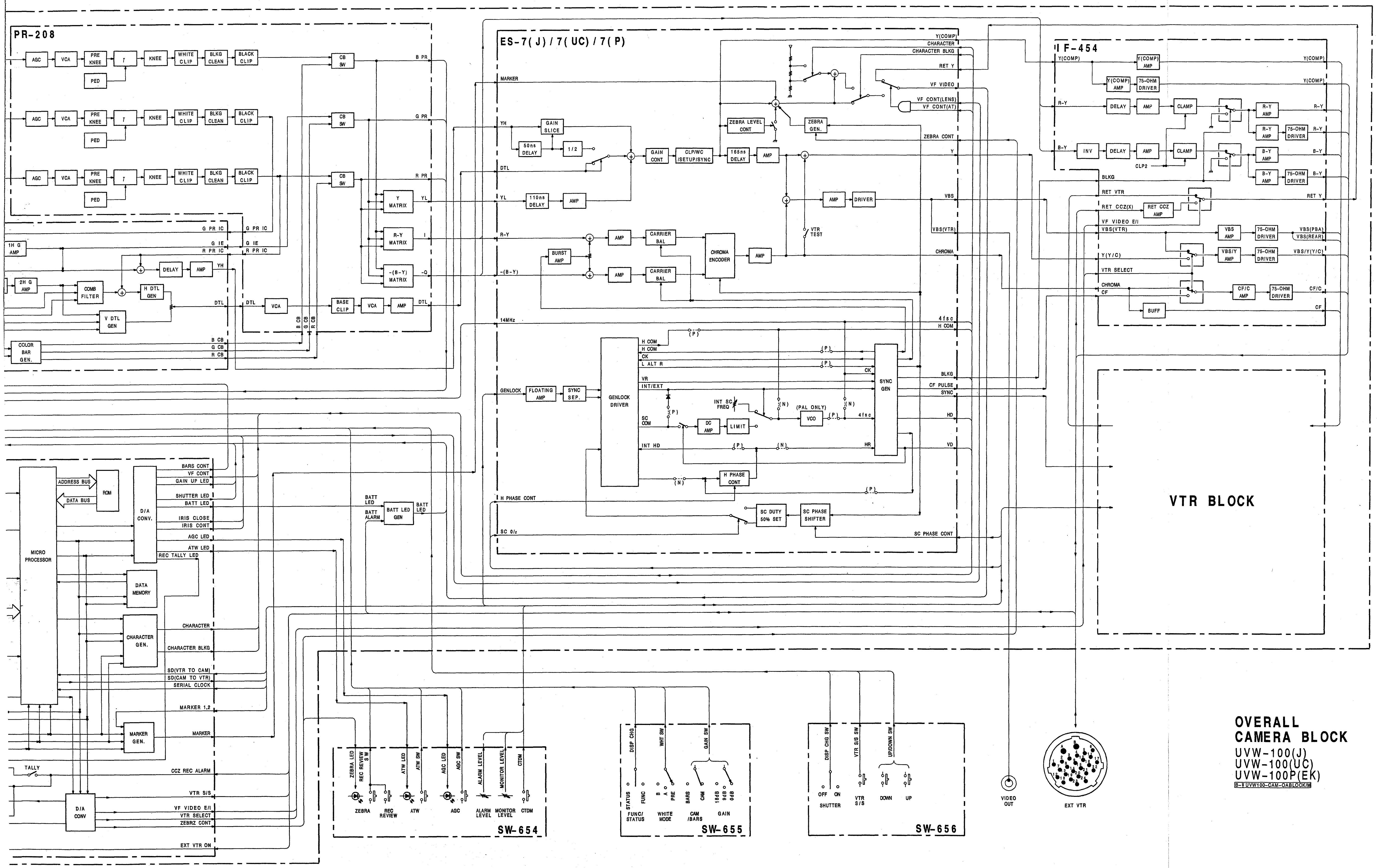
13-1. Notes on Repair Parts 13-1
13-2. Exploded Views 13-1
Front Panel 13-2
Reel Chassis 13-4
Slant 13-6
Drum 13-8
Loading Gear/Pinch Arm 13-10
Cam Gear 13-12
Pinch Press Mechanism 13-14
CTL Head Base 13-16
A/T Head Base 13-18
Cassette-Up Compartment 13-20
Top Frame/Rear Frame 13-22
Bottom Frame 13-24
Printed Circuit Board 13-26
Right Side Plate 13-28
Left Side Plate 13-30
Viewfinder(DXF-501/501CE) 13-32
Battery Case 13-34
Tripod Attachment (VCT-U14) 13-36
Lens (VCL-713BX) 13-38
13-3. ELECTRICAL PARTS LIST (MAIN UNIT) 13-40
13-4. OPTIONAL FIXTURE 13-84
13-5. ELECTRICAL PARTS LIST (VIEWFINDER) 13-85

14. CHANGED PARTS

SECTION 10
BLOCK DIAGRAMS

OVERALL BLOCK(CAMERA)


CCD BLOCK
MB-530/530(P)
IE-33/33P
PR-208
ES-7(J)/7(UC)/7(P)
AT-85
SW-654
RGB
ZOOM LENS
ROTATE
1 3200° K
2 5600° K+1/16ND
3 5600° K
BLUE CCD IMAGER
GREEN CCD IMAGER
RED CCD IMAGER
CORRELATED DOUBLE SAMPLING
PRE AMP
B PA
G PA
R PA
AMP
REF PULSE MIX
B VA
G VA
R VA
AGC
VCA
PRE KNEE
PED
KNEE
WHITE CLIP
BLKG CLEAN
BLACK CLIP
CB SW
B PR
G PR
R PR
Y MATRIX
R-Y MATRIX
-(B-Y) MATRIX
YL
I
-Q
SERIAL DATA
BLACK TRACKING LOCAL/REMOTE SWITCH
VD
HD
REF PULSE GEN.
4fsc
CLOCK GEN.
1H DELAY
1H G AMP
2H G AMP
DELAY
COMB FILTER
H DTL GEN
V DTL GEN
YH
G PR IC
G IE
R PR IC
DTL
BASE CLIP
B CB
G CB
R CB
BLKG
BARS CONT
COLOR BAR GEN.
IRIS CONT
IRIS CLOSE
VF CONT
VTR S/S
CCD DRIVE PULSE
G-CH TIMING PULSE GENERATOR
R/B-CH TIMING PULSE GENERATOR
H COM
FLD/FRM CONT
SSTB
14MHz
CL
PLL
R PR VIDEO
B PR VIDEO
G PR VIDEO
G-G
R-G
B-G
GEN.
ERROR DETECT
CLAMP
DC AMP
LIMIT
Y MATRIX
PEAK DETECT
NAM Y
SWITCHING
MPX
MICRO PROCESSOR
ADDRESS BUS
DATA BUS
ROM
D/A CONV.
DATA MEMORY
CHARACTER GEN.
MARKER GEN.
REC TALLY GEN
TALLY
REC RESET LATCH
EXT VTR ON DETECT
D/A CONV
GAIN UP LED
SHUTTER LED
BATT LED
AGC LED
ATW LED
REC TALLY LED
CHARACTER
CHARACTER BLKG
SD(VTR TO CAM)
SD(CAM TO VTR)
SERIAL CLOCK
MARKER 1,2
MARKER
CCZ REC ALARM
VF VIDEO E/I
VTR SELECT
ZEBRZ CONT
EXT VTR ON
REAR REC TRIG
REC REVIEW SW
GAIN SW
WHT SW
UP/DOWN SW
AGC SW
DISP CHG SW
S4 ADJ OPE
S3 KNEE NORM OFF
S2 FULL FUNC OPE
S5 EVW-300A UVW-100
S1 FRM FLD
OPTION
VIEWFINDER
VF VIDEO
BATT ALARM
BATT LED GEN
MARKER
YH
GAIN SLICE
50ns DELAY
1/2
GAIN CONT
110ns DELAY
R-Y
-(B-Y)
BURST AMP
CARRIER BAL
14MHz
GENLOCK
FLOATING AMP
SYNC SEP.
GENLOCK DRIVER
H COM
CK
L ALT R
VR
INT/EXT
SC COM
INT HD
(P)
(N)
H PHASE CONT
SC 0/π
ZEBRA LED
REC REVIEW SW
ATW LED
ATW SW
AGC LED
AGC SW
ALARM LEVEL
MONITOR LEVEL
CTDM
ZEBRA
REC REVIEW
ATW
AGC
ALARM LEVEL
MONITOR LEVEL
DISP CHG
WHT SW
STATUS
FUNC
B
A
PRE
BARS
FUNC/ STATUS
WHITE MODE

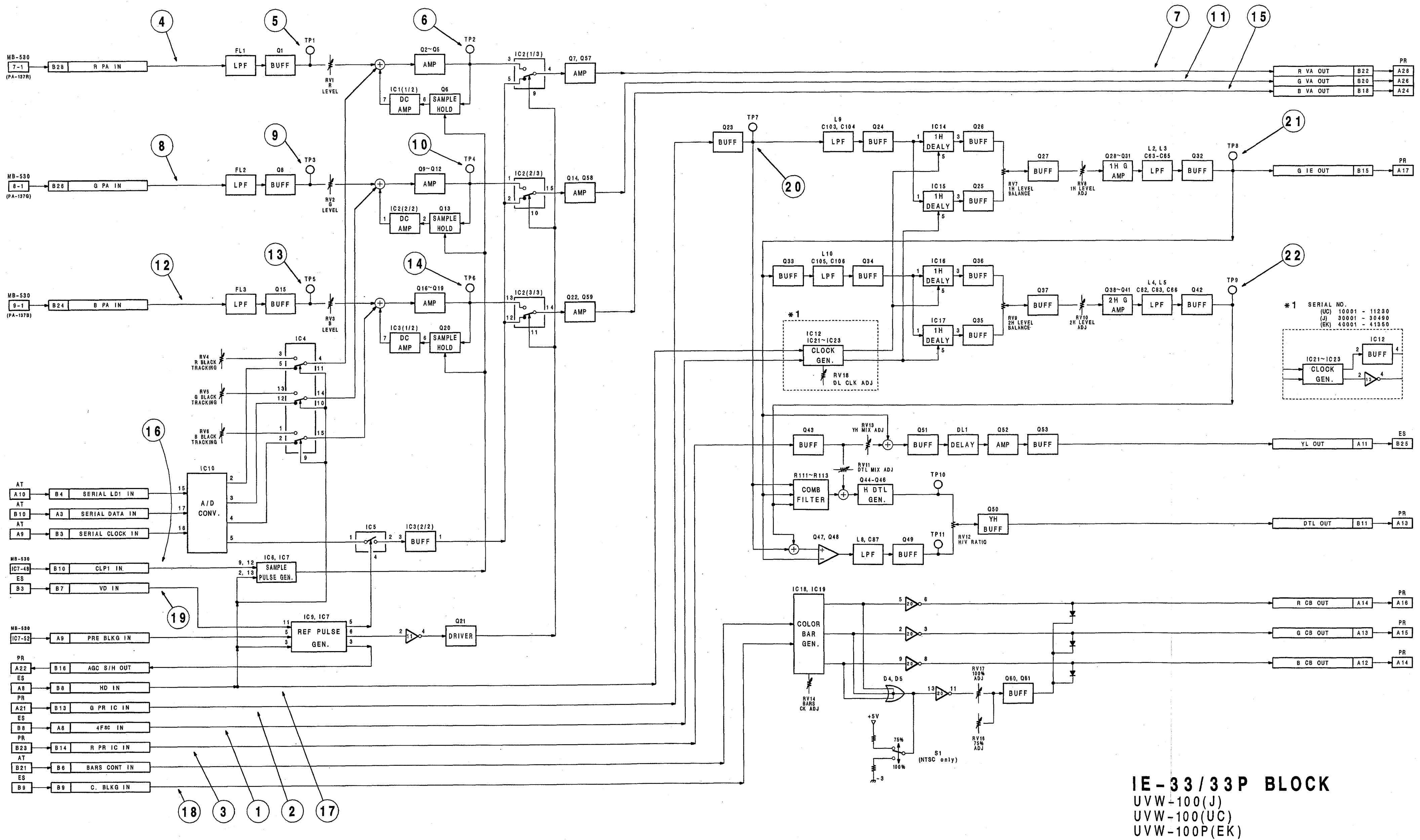

PR-208
AGC
VCA
PRE KNEE
γ
PED
KNEE
WHITE CLIP
BLKG CLEAN
BLACK CLIP
CB SW
B PR
G PR
R PR
Y MATRIX
YL
R-Y MATRIX
I
-(B-Y) MATRIX
-Q
G PR IC
G IE
R PR IC
1H G AMP
2H G AMP
DELAY
AMP
YH
COMB FILTER
H DTL GEN
V DTL GEN
DTL
BASE CLIP
B CB
G CB
R CB
COLOR BAR GEN.
ES-7(J)/7(UC)/7(P)
MARKER
GAIN SLICE
50ns DELAY
1/2
GAIN CONT
CLP/WC /SETUP/SYNC
ZEBRA LEVEL CONT
ZEBRA GEN.
165ns DELAY
110ns DELAY
R-Y
-(B-Y)
BURST AMP
CARRIER BAL
CHROMA ENCODER
DRIVER
VTR TEST
Y(COMP)
CHARACTER
CHARACTER BLKG
RET Y
VF VIDEO
VF CONT(LENS)
VF CONT(AT)
ZEBRA CONT
Y
VBS
VBS(VTR)
CHROMA
14MHz
4fsc
H COM
GENLOCK
FLOATING AMP
SYNC SEP.
GENLOCK DRIVER
CK
L ALT R
VR
INT/EXT
SC COM
INT SC FREQ
(P)
(N)
(PAL ONLY)
DC AMP
LIMIT
VCO
SYNC GEN
BLKG
CF PULSE
SYNC
HD
HR
VD
INT HD
H PHASE CONT
SC DUTY 50% SET
SC PHASE SHIFTER
SC 0/π
SC PHASE CONT
IF-454
Y(COMP) AMP
75-OHM DRIVER
DELAY
CLAMP
R-Y AMP
B-Y
INV
B-Y AMP
CLP2
RET VTR
RET CCZ(X)
RET CCZ AMP
VF VIDEO E/I
VBS AMP
VBS(PBA)
VBS(REAR)
Y(Y/C)
VBS/Y AMP
VBS/Y(Y/C)
VTR SELECT
CF
CF/C AMP
CF/C
BUFF
VTR BLOCK
MICRO PROCESSOR
ADDRESS BUS
DATA BUS
ROM
D/A CONV.
BARS CONT
VF CONT
GAIN UP LED
SHUTTER LED
BATT LED
IRIS CLOSE
IRIS CONT
AGC LED
ATW LED
REC TALLY LED
DATA MEMORY
CHARACTER GEN.
SD(VTR TO CAM)
SD(CAM TO VTR)
SERIAL CLOCK
MARKER 1,2
MARKER GEN.
TALLY
CCZ REC ALARM
VTR S/S
D/A CONV
ZEBRZ CONT
EXT VTR ON
BATT LED
BATT ALARM
BATT LED GEN
ZEBRA LED
REC REVIEW SW
ATW LED
ATW SW
AGC LED
AGC SW
ALARM LEVEL
MONITOR LEVEL
CTDM
ZEBRA
REC REVIEW
ATW
AGC
SW-654
DISP CHG
WHT SW
GAIN SW
STATUS
FUNC
B
A
PRE
BARS
CAM
18dB
9dB
0dB
FUNC/ STATUS
WHITE MODE
CAM /BARS
GAIN
SW-655
DISP CHG SW
VTR S/S SW
UP/DOWN SW
OFF
ON
SHUTTER
VTR S/S
DOWN
UP
SW-656
VIDEO OUT
EXT VTR

OVERALL
CAMERA BLOCK

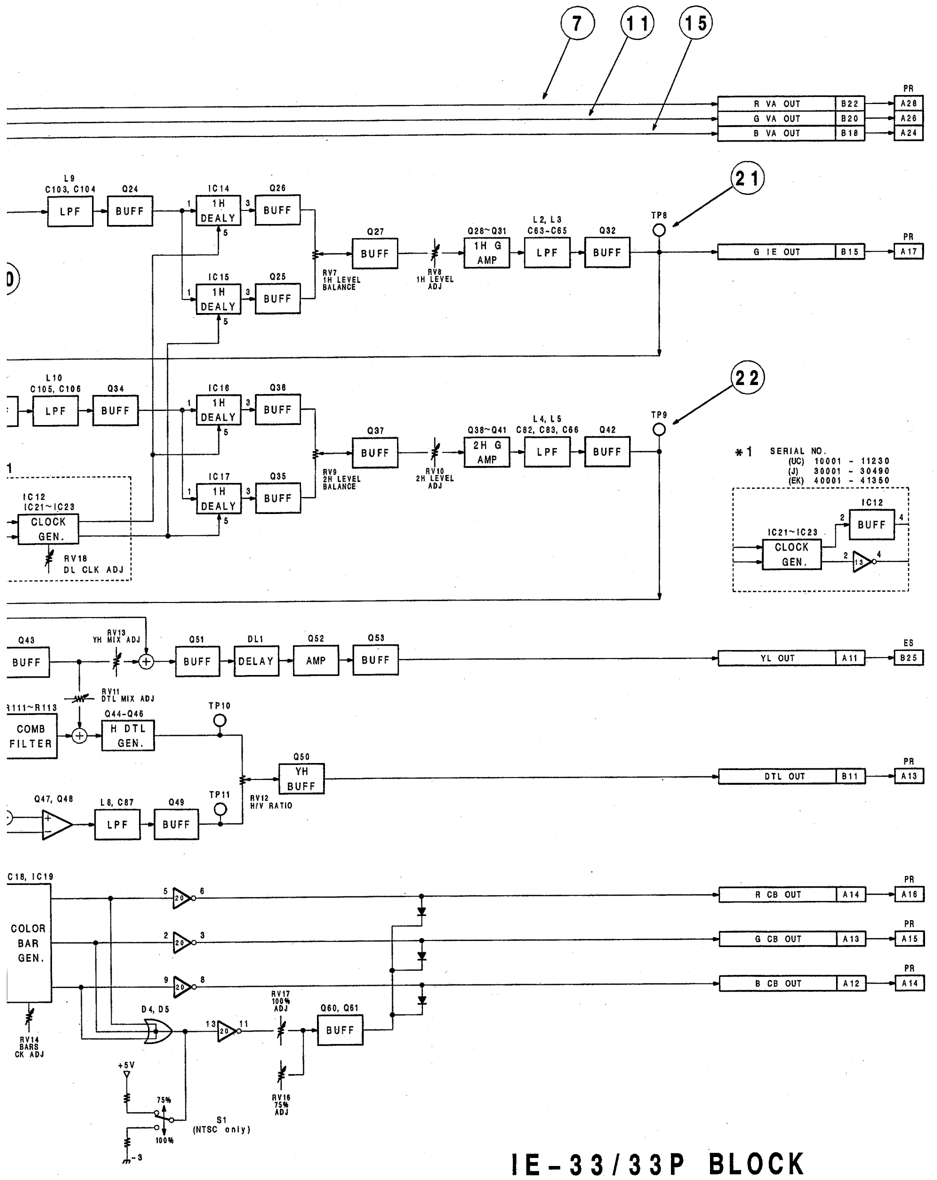
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

B-¥UVW100-CAM-OABLOCK/M

VIDEO AMP
IMAGE ENHANCER
COLOR BAR GENERATOR


MB-530
7-1
(PA-137R)
B28
R PA IN
MB-530
8-1
(PA-137G)
B26
G PA IN
MB-530
9-1
(PA-137B)
B24
B PA IN
FL1
FL2
FL3
LPF
Q1
Q8
Q15
BUFF
TP1
TP2
TP3
TP4
TP5
TP6
RV1
R
LEVEL
RV2
G
LEVEL
RV3
B
LEVEL
Q2~Q5
Q9~Q12
Q16~Q19
AMP
IC1(1/2)
IC2(2/2)
IC3(1/2)
DC
AMP
Q6
Q13
Q20
SAMPLE
HOLD
IC2(1/3)
IC2(2/3)
IC2(3/3)
Q7, Q57
Q14, Q58
Q22, Q59
AMP
IC4
RV4
R BLACK
TRACKING
RV5
G BLACK
TRACKING
RV6
B BLACK
TRACKING
IC10
A/D
CONV.
AT
A10
B4
SERIAL LD1 IN
AT
B10
A3
SERIAL DATA IN
AT
A9
B3
SERIAL CLOCK IN
MB-530
IC7-48
B10
CLP1 IN
ES
B3
B7
VD IN
MB-530
IC7-52
A9
PRE BLKG IN
PR
A22
B16
AGC S/H OUT
ES
A8
B8
HD IN
PR
A21
B13
G PR IC IN
ES
B8
A8
4FSC IN
PR
B23
B14
R PR IC IN
AT
B21
B6
BARS CONT IN
ES
B9
B9
C. BLKG IN
IC6, IC7
SAMPLE
PULSE GEN.
IC5
IC3(2/2)
BUFF
IC9, IC7
REF PULSE
GEN.
Q21
DRIVER
R VA OUT
B22
PR
A28
G VA OUT
B20
A26
B VA OUT
B18
A24
Q23
BUFF
TP7
L9
C103, C104
LPF
Q24
BUFF
IC14
IC15
IC16
IC17
1H
DEALY
Q26
Q25
Q36
Q35
BUFF
RV7
1H LEVEL
BALANCE
Q27
BUFF
RV8
1H LEVEL
ADJ
Q28~Q31
1H G
AMP
L2, L3
C63-C65
LPF
Q32
BUFF
TP8
G IE OUT
B15
PR
A17
Q33
BUFF
L10
C105, C106
LPF
Q34
BUFF
RV9
2H LEVEL
BALANCE
Q37
BUFF
RV10
2H LEVEL
ADJ
Q38~Q41
2H G
AMP
L4, L5
C82, C83, C66
LPF
Q42
BUFF
TP9
*1
IC12
IC21~IC23
CLOCK
GEN.
RV18
DL CLK ADJ
*1 SERIAL NO.
(UC) 10001 - 11230
(J) 30001 - 30490
(EK) 40001 - 41350
IC12
BUFF
IC21~IC23
CLOCK
GEN.
Q43
BUFF
RV13
YH MIX ADJ
Q51
BUFF
DL1
DELAY
Q52
AMP
Q53
BUFF
YL OUT
A11
ES
B25
RV11
DTL MIX ADJ
R111~R113
COMB
FILTER
Q44-Q46
H DTL
GEN.
TP10
Q50
YH
BUFF
RV12
H/V RATIO
DTL OUT
B11
PR
A13
Q47, Q48
L8, C87
LPF
Q49
BUFF
TP11
IC18, IC19
COLOR
BAR
GEN.
RV14
BARS
CK ADJ
D4, D5
RV17
100%
ADJ
Q60, Q61
BUFF
RV16
75%
ADJ
+5V
75%
100%
S1
(NTSC only)
R CB OUT
A14
PR
A16
G CB OUT
A13
PR
A15
B CB OUT
A12
PR
A14
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
⑰
⑱
⑲
⑳
㉑
㉒

IE-33/33P BLOCK
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)
B-¥UVW100-IE33BLOCK/M


7
11
15
R VA OUT
B22
A28
G VA OUT
B20
A26
B VA OUT
B18
A24
PR
L9
C103, C104
LPF
Q24
BUFF
IC14
1H DEALY
Q26
BUFF
IC15
1H DEALY
Q25
BUFF
RV7
1H LEVEL BALANCE
Q27
BUFF
RV8
1H LEVEL ADJ
Q28~Q31
1H G AMP
L2, L3
C63-C65
LPF
Q32
BUFF
TP8
21
G IE OUT
B15
PR
A17
L10
C105, C106
LPF
Q34
BUFF
IC16
1H DEALY
Q36
BUFF
IC17
1H DEALY
Q35
BUFF
RV9
2H LEVEL BALANCE
Q37
BUFF
RV10
2H LEVEL ADJ
Q38~Q41
2H G AMP
L4, L5
C82, C83, C66
LPF
Q42
BUFF
TP9
22
IC12
IC21~IC23
CLOCK GEN.
RV18
DL CLK ADJ
*1 SERIAL NO.
(UC) 10001 - 11230
(J) 30001 - 30490
(EK) 40001 - 41350
IC12
BUFF
IC21~IC23
CLOCK GEN.
Q43
BUFF
RV13
YH MIX ADJ
Q51
BUFF
DL1
DELAY
Q52
AMP
Q53
BUFF
YL OUT
A11
ES
B25
RV11
DTL MIX ADJ
R111~R113
COMB FILTER
Q44-Q46
H DTL GEN.
TP10
Q50
YH BUFF
DTL OUT
B11
PR
A13
Q47, Q48
L8, C87
LPF
Q49
BUFF
TP11
RV12
H/V RATIO
IC18, IC19
COLOR BAR GEN.
RV14
BARS
CK ADJ
R CB OUT
A14
PR
A16
G CB OUT
A13
PR
A15
B CB OUT
A12
PR
A14
D4, D5
RV17
100%
ADJ
Q60, Q61
BUFF
+5V
75%
100%
S1
(NTSC only)
RV16
75%
ADJ
-3

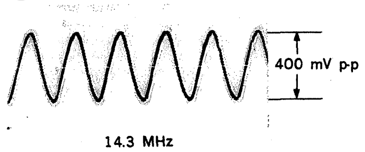
# IE-33/33P BLOCK
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)
B-¥UVW100-IE33BLOCK/M

VIDEO AMP
IMAGE ENHANCER
COLOR BAR GENERATOR

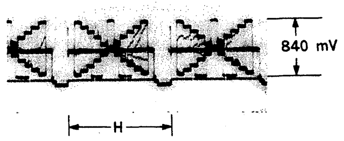
注意：
1. DC電圧はデジタル電圧計による値。
   No Mark : CAM mode
   ( ) Mark : BARS mode
2. 波形写真，およびDC電圧は下記条件での測定。
   - グレースケールチャートを撮像し，波形モニターにて，ビデオ出力の白レベルが100IREになるようにレンズ絞りをセットする。
   - OUTPUT : CAM
   - GAIN : 0dB
   - WHITE BAL : PRE
   - SHUTTER : OFF

NOTE :
1. All voltage are DC. measured with a digital voltmeter.
   No Mark : CAM mode
   ( ) Mark : BARS mode
2. All waveforms are taken and DC voltage is measured in condition below.
   - Shoot the gray scale chart. Adjust lens iris so that a white level is 100IRE for NTSC or 700 mV for PAL on the waveform monitor.
   - OUTPUT : CAM
   - GAIN : 0dB
   - WHITE BAL : PRE
   - SHUTTER : OFF

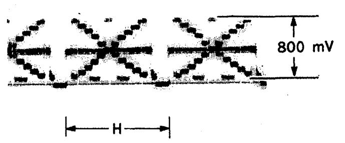
① CN1-A8 4FSC CAM side



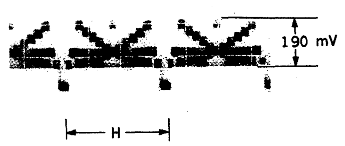
② CN1-B13 G PR VIDEO CAM side



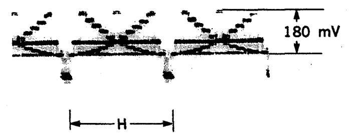
③ CN1-B14 R PR IC CAM side



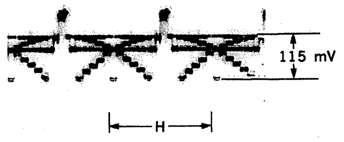
④ CN1-B28 R PA CAM side



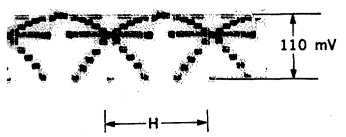
⑤ TP1 R PA VIDEO CAM side



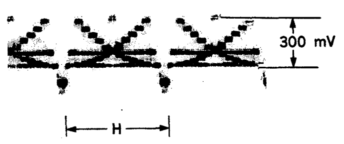
⑥ ⑩ ⑭ TP2/TP4/TP6 R/G/B VIDEO CAM side



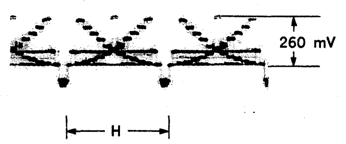
⑦ CN1-B22 R VA CAM side



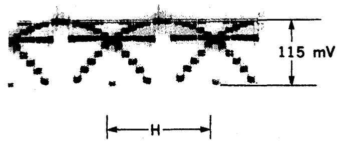
⑧ CN1-B26 G PA CAM side



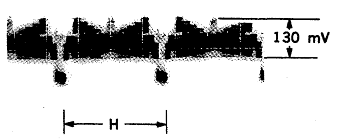
⑨ TP3 G PA VIDEO CAM side



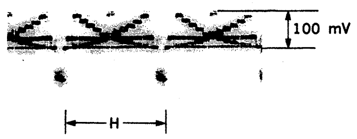
⑪ CN1-B20 G VA CAM side



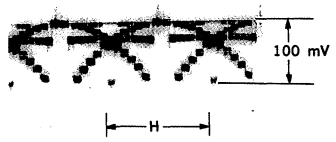
⑫ CN1-B24 B PA CAM side



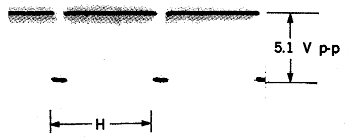
⑬ TP5 B PA VIDEO CAM side



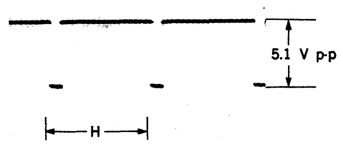
⑮ CN1-B18 B VA CAM side



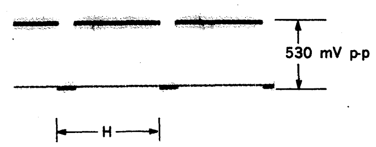
⑯ CN1-A9 CLP1 CAM side



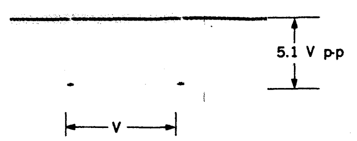
⑰ CN1-B8 HD CAM/BARS



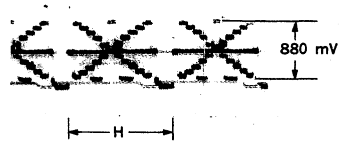
⑱ CN1-B9 BLKG CAM/BARS



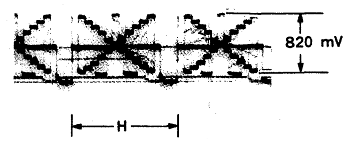
⑲ CN1-B7 VD CAM/BARS



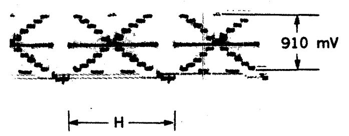
⑳ TP7 G PR VIDEO CAM side



㉑ CN1-B15, TP8 G IE CAM side



㉒ TP9 R PR VIDEO CAM side



VIDEO PROCESS

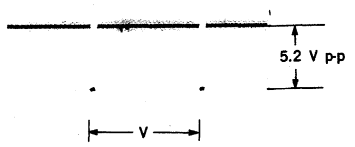
注意：

1. DC電圧はデジタル電圧計による値。
   No Mark : CAM mode
   ( ) Mark : BARS mode
2. 波形写真，およびDC電圧は下記条件での測定。
   - グレースケールチャートを撮像し，波形モニターにて，ビデオ出力の白レベルが100IREになるようにレンズ絞りをセットする。
   - OUTPUT : CAM
   - GAIN : 0dB
   - WHITE BAL : PRE
   - SHUTTER : OFF

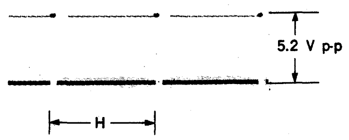
NOTE :

1. All voltage are DC. measured with a digital voltmeter.
   No MarkI : CAM mode
   ( ) Mark : BARS mode
2. All waveforms are taken and DC voltage is measured in condition below.
   - Shoot the gray scale chart. Adjust lens iris so that a white level is 100IRE for NTSC or 700 mV for PAL on the waveform monitor.
   - OUTPUT : CAM
   - GAIN : 0dB
   - WHITE BAL : PRE
   - SHUTTER : OFF

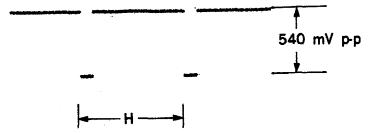
① CN1-B7 VD CAM side



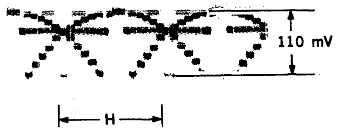
② CN1-A10 CLP 3 CAM side



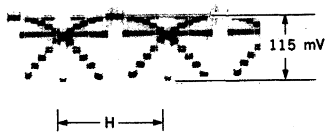
③ CN1-A9 P BLKG CAM side



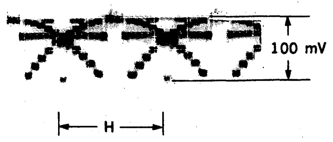
④ CN1-A28 R VA CAM side



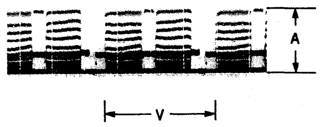
⑤ CN1-A26 G VA CAM side



⑥ CN1-A24 B VA CAM side

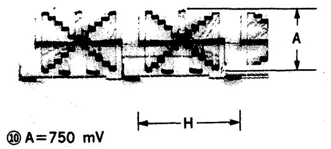


⑦ ⑧ ⑨ CN1-A20/A19/A18 CAM side R/G/B WB



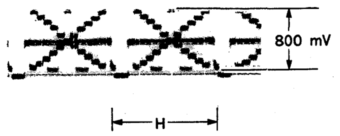
⑦ A=190 mV p-p
⑧ A=290 mV p-p
⑨ A=190 mV p-p

⑩ ⑬ ⑯ TP1/TP2/TP3 CAM side R/G/B PR VIDEO

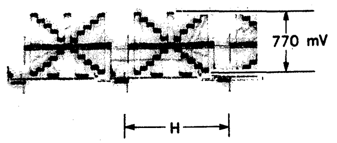


⑩ A=750 mV
⑬ A=840 mV
⑯ A=920 mV

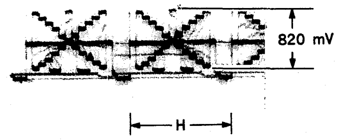
⑪ CN1-B23 R PR IC CAM side



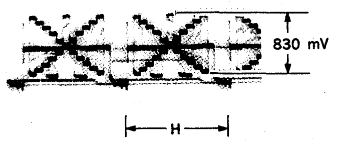
⑫ CN1-B22 R PR VIDEO CAM side



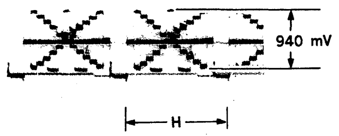
⑭ CN1-A17 G IE CAM side



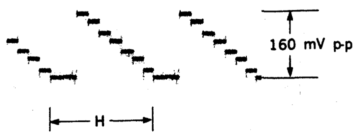
⑮ CN1-B21 G PR VIDEO CAM side



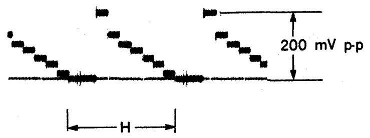
⑰ CN1-B20 B PR VIDEO CAM side



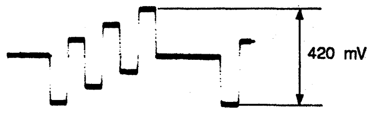
⑱ CN1-B16 Y VIDEO (for NTSC) BARS side



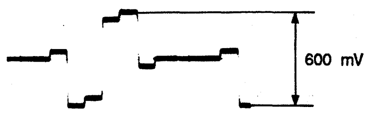
⑱ CN1-B16 Y VIDEO (for PAL) BARS side



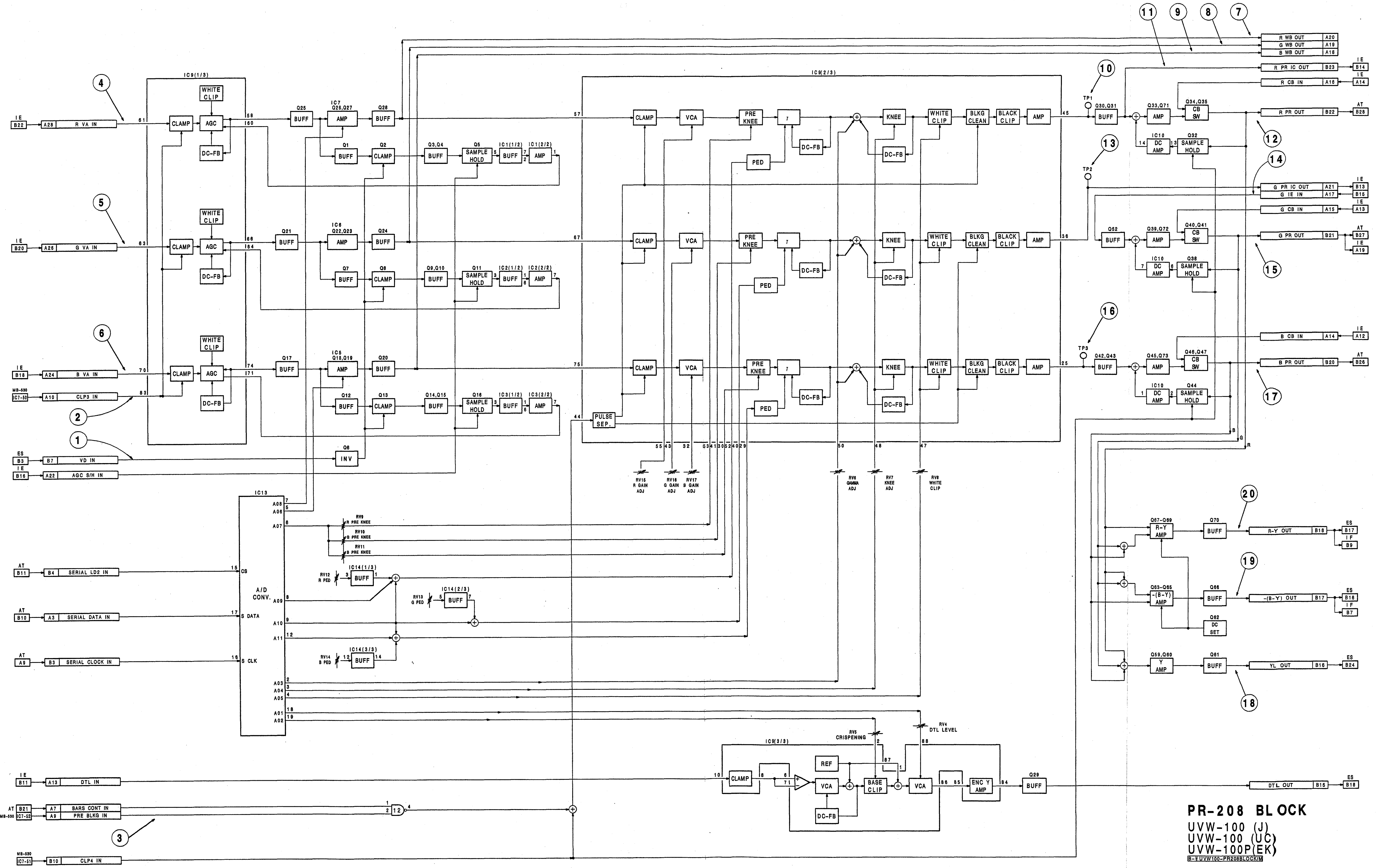
⑲ CN1-B17 B-Y VIDEO BARS side



⑳ CN1-B18 R-Y VIDEO BARS side

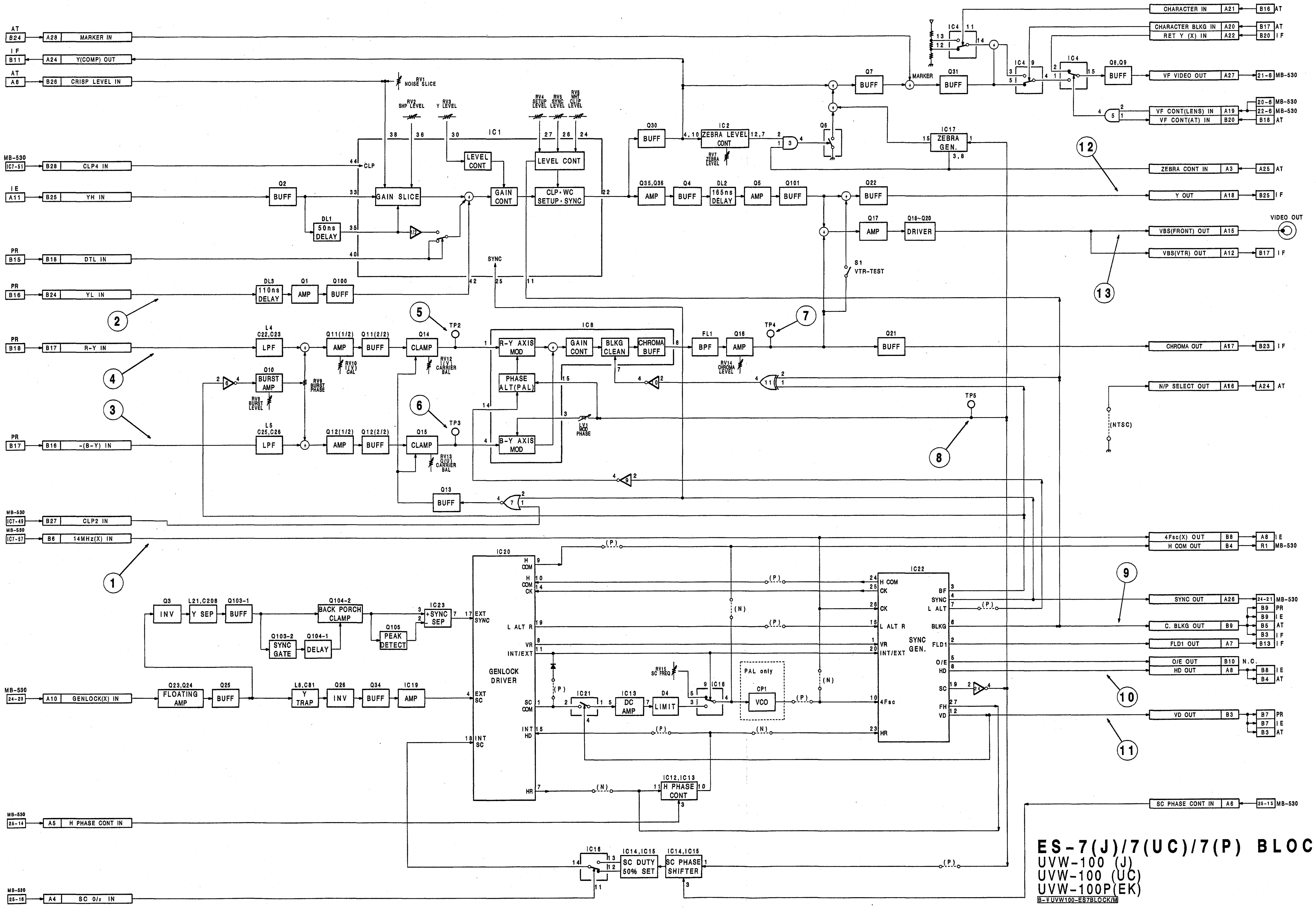


VIDEO PROCESS


IE B22 A28 R VA IN
IE B20 A26 G VA IN
IE B18 A24 B VA IN
MB-530 IC7-50 A10 CLP3 IN
ES B3 B7 VD IN
IE B16 A22 AGC S/H IN
AT B11 B4 SERIAL LD2 IN
AT B10 A3 SERIAL DATA IN
AT A9 B3 SERIAL CLOCK IN
IE B11 A13 DTL IN
AT B21 A7 BARS CONT IN
MB-530 IC7-52 A9 PRE BLKG IN
MB-530 IC7-51 B10 CLP4 IN
IC9(1/3)
CLAMP
AGC
WHITE CLIP
DC-FB
Q25 BUFF
IC7 Q26,Q27 AMP
Q28 BUFF
Q1 BUFF
Q2 CLAMP
Q3,Q4 BUFF
Q5 SAMPLE HOLD
IC1(1/2) BUFF
IC1(2/2) AMP
Q21 BUFF
IC6 Q22,Q23 AMP
Q24 BUFF
Q7 BUFF
Q8 CLAMP
Q9,Q10 BUFF
Q11 SAMPLE HOLD
IC2(1/2) BUFF
IC2(2/2) AMP
Q17 BUFF
IC5 Q18,Q19 AMP
Q20 BUFF
Q12 BUFF
Q13 CLAMP
Q14,Q15 BUFF
Q16 SAMPLE HOLD
IC3(1/2) BUFF
IC3(2/2) AMP
Q6 INV
IC9(2/3)
PULSE SEP.
VCA
PRE KNEE
γ
PED
KNEE
DC-FB
WHITE CLIP
BLKG CLEAN
BLACK CLIP
RV15 R GAIN ADJ
RV16 G GAIN ADJ
RV17 B GAIN ADJ
RV6 GAMMA ADJ
RV7 KNEE ADJ
RV8 WHITE CLIP
TP1
TP2
TP3
Q30,Q31 BUFF
Q33,Q71 AMP
Q34,Q35 CB SW
IC10 DC AMP
Q32 SAMPLE HOLD
Q52 BUFF
Q39,Q72 AMP
Q40,Q41 CB SW
Q38 SAMPLE HOLD
Q42,Q43 BUFF
Q45,Q73 AMP
Q46,Q47 CB SW
Q44 SAMPLE HOLD
R WB OUT A20
G WB OUT A19
B WB OUT A18
R PR IC OUT B23 IE B14
R CB IN A16 IE A14
R PR OUT B22 AT B28
G PR IC OUT A21 IE B13
G IE IN A17 IE B15
G CB IN A15 IE A13
G PR OUT B21 AT B27 IE A19
B CB IN A14 IE A12
B PR OUT B20 AT B26
IC13
A/D CONV.
CS
S DATA
S CLK
A08 A06 A07 A09 A10 A11 A03 A04 A05 A01 A02
RV9 R PRE KNEE
RV10 G PRE KNEE
RV11 B PRE KNEE
RV12 R PED
IC14(1/3) BUFF
RV13 G PED
IC14(2/3) BUFF
RV14 B PED
IC14(3/3) BUFF
Q67-Q69 R-Y AMP
Q70 BUFF
R-Y OUT B18 ES B17 IF B9
Q63-Q65 -(B-Y) AMP
Q66 BUFF
-(B-Y) OUT B17 ES B16 IF B7
Q62 DC SET
Q59,Q60 Y AMP
Q61 BUFF
YL OUT B16 ES B24
IC9(3/3)
RV5 CRISPENING
RV4 DTL LEVEL
REF
BASE CLIP
ENC Y AMP
Q29 BUFF
DTL OUT B15 ES B18
IC12
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
R G B

PR-208 BLOCK
UVW-100 (J)
UVW-100 (UC)
UVW-100P(EK)
B-9 UVW100-PR208BLOCK/M

CHROMA ENCODER
SYNC GENERATOR


MARKER IN
Y(COMP) OUT
CRISP LEVEL IN
CLP4 IN
YH IN
DTL IN
YL IN
R-Y IN
-(B-Y) IN
CLP2 IN
14MHz(X) IN
GENLOCK(X) IN
H PHASE CONT IN
SC 0/π IN
RV1 NOISE SLICE
RV2 SHP LEVEL
RV3 Y LEVEL
RV4 SETUP LEVEL
RV5 SYNC LEVEL
RV6 WHT CLIP LEVEL
IC1
GAIN SLICE
LEVEL CONT
GAIN CONT
CLP·WC SETUP·SYNC
Q2 BUFF
DL1 50ns DELAY
DL3 110ns DELAY
Q1 AMP
Q100 BUFF
SYNC
Q30 BUFF
IC2 ZEBRA LEVEL CONT
RV7 ZEBRA LEVEL
Q6
Q35,Q36 AMP
Q4 BUFF
DL2 165ns DELAY
Q5 AMP
Q101 BUFF
Q22 BUFF
Q17 AMP
Q18-Q20 DRIVER
S1 VTR-TEST
Q7 BUFF
MARKER
Q31 BUFF
IC4
Q8,Q9 BUFF
IC17 ZEBRA GEN.
CHARACTER IN
CHARACTER BLKG IN
RET Y (X) IN
VF VIDEO OUT
VF CONT(LENS) IN
VF CONT(AT) IN
ZEBRA CONT IN
Y OUT
VBS(FRONT) OUT
VBS(VTR) OUT
VIDEO OUT
CHROMA OUT
N/P SELECT OUT
(NTSC)
L4 C22,C23 LPF
L5 C25,C26 LPF
Q10 BURST AMP
RV8 BURST LEVEL
RV9 BURST PHASE
Q11(1/2) AMP
Q11(2/2) BUFF
RV10 Y(I) GAIN
Q12(1/2) AMP
Q12(2/2) BUFF
Q14 CLAMP
Q15 CLAMP
TP2
TP3
RV12 CARRIER BAL
RV13 CARRIER BAL
IC8
R-Y AXIS MOD
B-Y AXIS MOD
PHASE ALT(PAL)
GAIN CONT
BLKG CLEAN
CHROMA BUFF
LV1 MOD PHASE
FL1 BPF
Q16 AMP
RV14 CHROMA LEVEL
TP4
Q21 BUFF
TP5
Q13 BUFF
IC20
GENLOCK DRIVER
H COM
L ALT R
VR
INT/EXT
EXT SYNC
EXT SC
SC COM
INT HD
INT SC
HR
Q3 INV
L21,C208 Y SEP
Q103-1 BUFF
Q104-2 BACK PORCH CLAMP
Q103-2 SYNC GATE
Q104-1 DELAY
Q105 PEAK DETECT
IC23 +SYNC SEP
Q23,Q24 FLOATING AMP
Q25 BUFF
L8,C81 Y TRAP
Q26 INV
Q34 BUFF
IC19 AMP
IC21
IC13 DC AMP
D4 LIMIT
RV11 SC FREQ
IC16
PAL only
CP1 VCO
IC22
SYNC GEN.
BF
SYNC
L ALT
BLKG
FLD1
O/E
HD
SC
FH
VD
4Fsc
CK
IC12,IC13 H PHASE CONT
IC18
IC14,IC15 SC DUTY 50% SET
IC14,IC15 SC PHASE SHIFTER
4Fsc(X) OUT
H COM OUT
SYNC OUT
C. BLKG OUT
FLD1 OUT
O/E OUT
HD OUT
VD OUT
SC PHASE CONT IN
(P)
(N)
MB-530
AT
IF
IE
PR
N.C
1
2
3
4
5
6
7
8
9
10
11
12
13

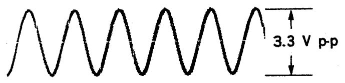
ES-7(J)/7(UC)/7(P) BLOCK
UVW-100 (J)
UVW-100 (UC)
UVW-100P(EK)
B-1UVW100-ES7BLOCK/M

CHROMA ENCODER
SYNC GENERATOR

注意：
1. DC電圧はデジタル電圧計による値。
   No Mark : BARS side
2. 波形写真，およびDC電圧は下記条件での測定。
   - グレースケールチャートを撮像し，波形モニターにて，ビデオ出力の白レベルが100IREになるようにレンズ絞りをセットする。
   - OUTPUT : CAM
   - GAIN : 0dB
   - WHITE BAL : PRE
   - SHUTTER : OFF

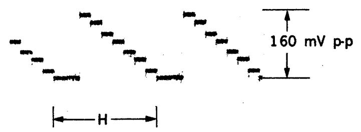
NOTE :
1. All voltage are DC. measured with a digital voltmeter.
   No Mark : BARS side
2. All waveforms are taken and DC voltage is measured in condition below.
   - Shoot the grayscale chart. Adjust lens iris so that a white level is 100IRE for NTSC or 700 mV for PAL on the waveform monitor.
   - OUTPUT : CAM
   - GAIN : 0dB
   - WHITE BAL : PRE
   - SHUTTER : OFF

① CN1-B6 4FSC BARS side

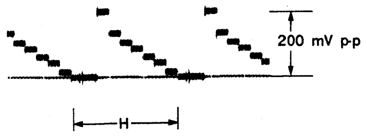


14.3 MHz (NTSC) 17.7 MHz (PAL)

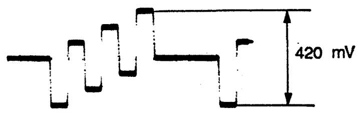
② CN1-B24 Y VIDEO (for NTSC) BARS side



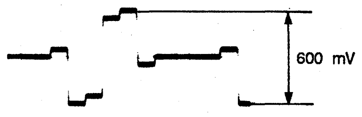
② CN1-B24 Y VIDEO (for PAL) BARS side



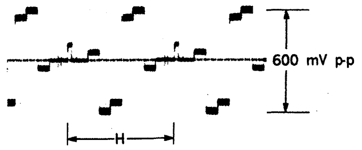
③ CN1-B16 B-Y VIDEO BARS side



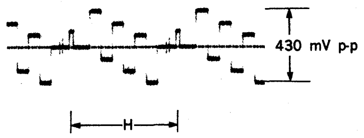
④ CN1-B17 R-Y VIDEO BARS side



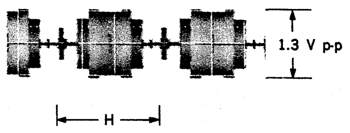
⑤ TP2 R-Y VIDEO BARS side



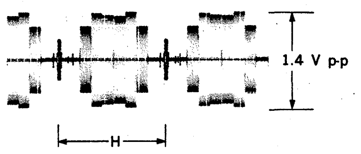
⑥ TP3 B-Y VIDEO BARS side



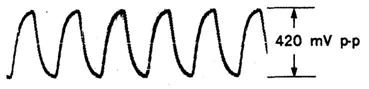
⑦ TP4 CHROMA (for NTSC) BARS side



⑦ TP4 CHROMA (for PAL) BARS side

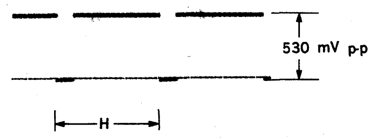


⑧ TP5 FSC BARS side

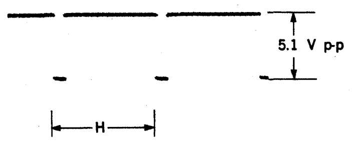


3.58 MHz (NTSC) 4.43 MHz (PAL)

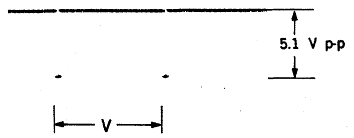
⑨ CN1-B9 BLKG CAM/BARS



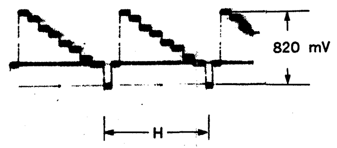
⑩ CN1-A8 HD CAM/BARS



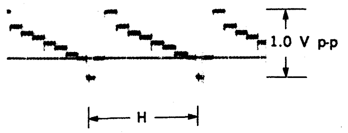
⑪ CN1-B3 VD CAM/BARS



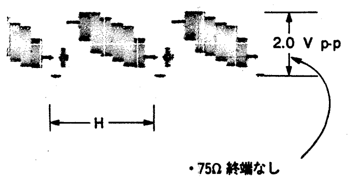
⑫ CN1-A18 Y VIDEO (for NTSC) BARS side



⑫ CN1-A18 Y VIDEO (for PAL) BARS side

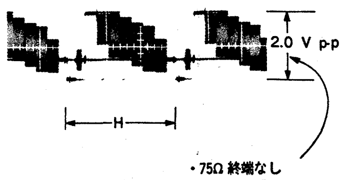


⑬ CN1-A15 VBS (for NTSC) BARS side



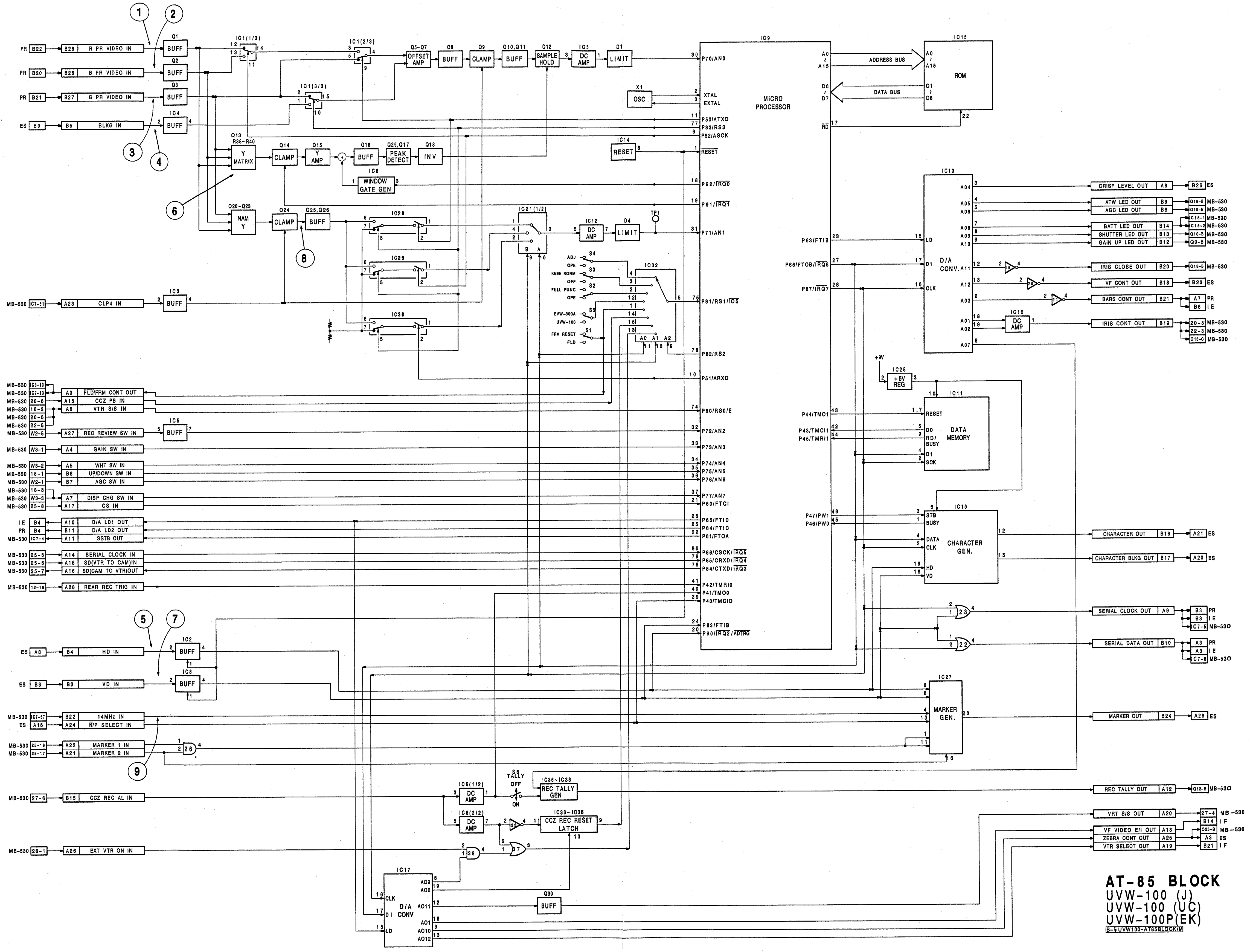
・75Ω終端なし
・without 75 Ω termination

⑬ CN1-A15 VBS (for PAL) BARS side



・75Ω終端なし
・without 75 Ω termination

CAMERA SYSTEM CONTROL


①
②
③
④
⑤
⑥
⑦
⑧
⑨
R PR VIDEO IN
B PR VIDEO IN
G PR VIDEO IN
BLKG IN
CLP4 IN
BUFF
Q1
Q2
Q3
IC4
IC3
IC1(1/3)
IC1(2/3)
IC1(3/3)
Q5~Q7
OFFSET AMP
Q8
Q9
CLAMP
Q10,Q11
Q12
SAMPLE HOLD
IC5
DC AMP
D1
LIMIT
Q13
R38~R40
Y MATRIX
Q14
Q15
Y AMP
Q16
Q29,Q17
PEAK DETECT
Q18
INV
IC6
WINDOW GATE GEN
Q20~Q23
NAM Y
Q24
Q25,Q26
IC28
IC29
IC30
IC31(1/2)
IC12
D4
TP1
S4
ADJ
OPE
S3
KNEE NORM
OFF
S2
FULL FUNC
S5
EVW-300A
UVW-100
S1
FRM RESET
FLD
IC32
IC9
MICRO PROCESSOR
X1
OSC
XTAL
EXTAL
IC14
RESET
P70/AN0
P50/ATXD
P83/RS3
P52/ASCK
P92/IRQ0
P91/IRQ1
P71/AN1
P81/RS1/IOS
P82/RS2
P51/ARXD
P80/RS0/E
P72/AN2
P73/AN3
P74/AN4
P75/AN5
P76/AN6
P77/AN7
P60/FTCI
P65/FTID
P64/FTIC
P61/FTOA
P86/CSCK/IRQ5
P85/CRXD/IRQ4
P84/CTXD/IRQ3
P42/TMRI0
P41/TMO0
P40/TMCI0
P63/FTIB
P90/IRQ2/ADTRG
A0~A15
D0~D7
RD
ADDRESS BUS
DATA BUS
IC15
ROM
IC13
D/A CONV.
LD
D1
CLK
P63/FTIB
P66/FTOB/IRQ6
P67/IRQ7
CRISP LEVEL OUT
ATW LED OUT
AGC LED OUT
BATT LED OUT
SHUTTER LED OUT
GAIN UP LED OUT
IRIS CLOSE OUT
VF CONT OUT
BARS CONT OUT
IRIS CONT OUT
+9V
IC25
+5V REG
IC11
DATA MEMORY
RESET
DO
RD/BUSY
SCK
P44/TMO1
P43/TMCI1
P45/TMRI1
IC10
CHARACTER GEN.
STB
BUSY
DATA
HD
VD
P47/PW1
P46/PW0
CHARACTER OUT
CHARACTER BLKG OUT
SERIAL CLOCK OUT
SERIAL DATA OUT
IC27
MARKER GEN.
MARKER OUT
FLD/FRM CONT OUT
CCZ PB IN
VTR S/S IN
REC REVIEW SW IN
GAIN SW IN
WHT SW IN
UP/DOWN SW IN
AGC SW IN
DISP CHG SW IN
CS IN
D/A LD1 OUT
D/A LD2 OUT
SSTB OUT
SERIAL CLOCK IN
SD(VTR TO CAM)IN
SD(CAM TO VTR)OUT
REAR REC TRIG IN
HD IN
VD IN
IC2
IC8
14MHz IN
N/P SELECT IN
MARKER 1 IN
MARKER 2 IN
CCZ REC AL IN
EXT VTR ON IN
IC6(1/2)
IC6(2/2)
S6
TALLY
OFF
ON
IC36~IC38
REC TALLY GEN
CCZ REC RESET LATCH
IC17
D/A CONV
Q30
REC TALLY OUT
VRT S/S OUT
VF VIDEO E/I OUT
ZEBRA CONT OUT
VTR SELECT OUT
PR
ES
IE
IF
MB-530

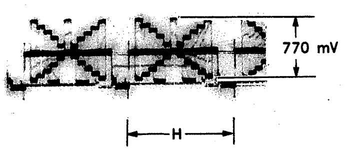
AT-85 BLOCK
UVW-100 (J)
UVW-100 (UC)
UVW-100P(EK)
B-9UVW100-AT85BLOCK/M

CAMERA SYSTEM CONTROL

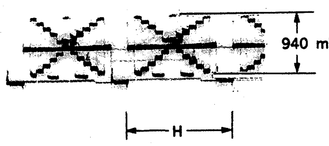
注意：
1. DC電圧はデジタル電圧計による値。
   No Mark : CAM side
2. 波形写真，およびDC電圧は下記条件での測定。
   - グレースケールチャートを撮像し，波形モニターにて，ビデオ出力の白レベルが100IREになるようにレンズ絞りをセットする。
   - OUTPUT : CAM
   - GAIN : 0dB
   - WHITE BAL : PRE
   - SHUTTER : OFF

NOTE :
1. All voltage are DC. measured with a digital voltmeter.
   No Mark : CAM side
2. All waveforms are taken and DC voltage is measured in condition below.
   - Shoot the grayscale chart. Adjust lens iris so that a white level is 100IRE for NTSC or 700 mV for PAL on the waveform monitor.
   - OUTPUT : CAM
   - GAIN : 0dB
   - WHITE BAL : PRE
   - SHUTTER : OFF

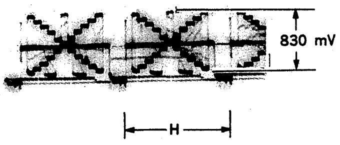
① CN1-B28 R PR VIDEO CAM side



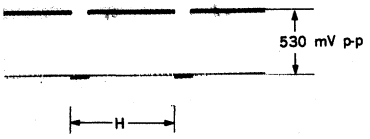
② CN1-B26 B PR VIDEO CAM side



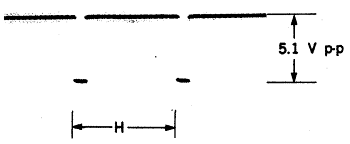
③ CN1-B27 G PR VIDEO CAM side



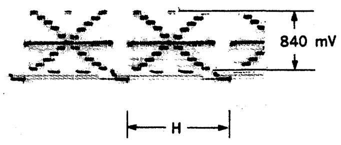
④ CN1-B5 BLKG CAM/BARS



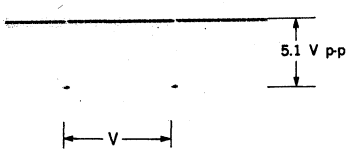
⑤ CN1-B4 HD CAM/BARS



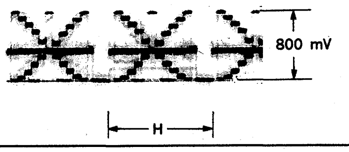
⑥ Q13 Ⓑ R/G/B PR VIDEO CAM side



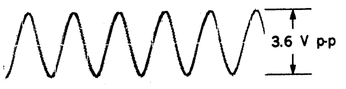
⑦ CN1-B3 VD CAM/BARS



⑧ Q24 Ⓔ R/G/B PR VIDEO CAM side



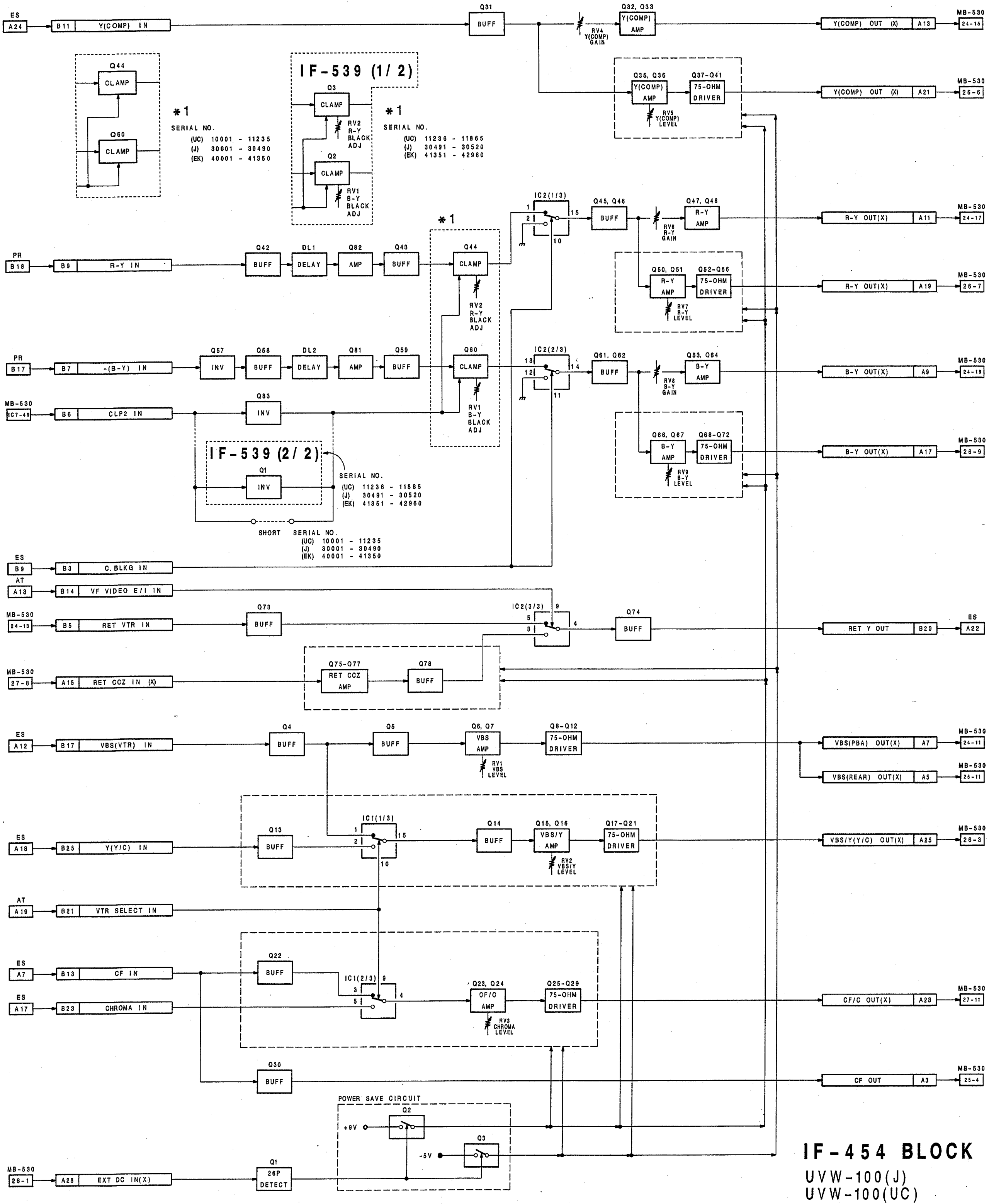
⑨ CN1-B22 4FSC CAM side



14.3 MHz (NTSC) 17.7 MHz (PAL)

IF-454, IF-539 BLOCK

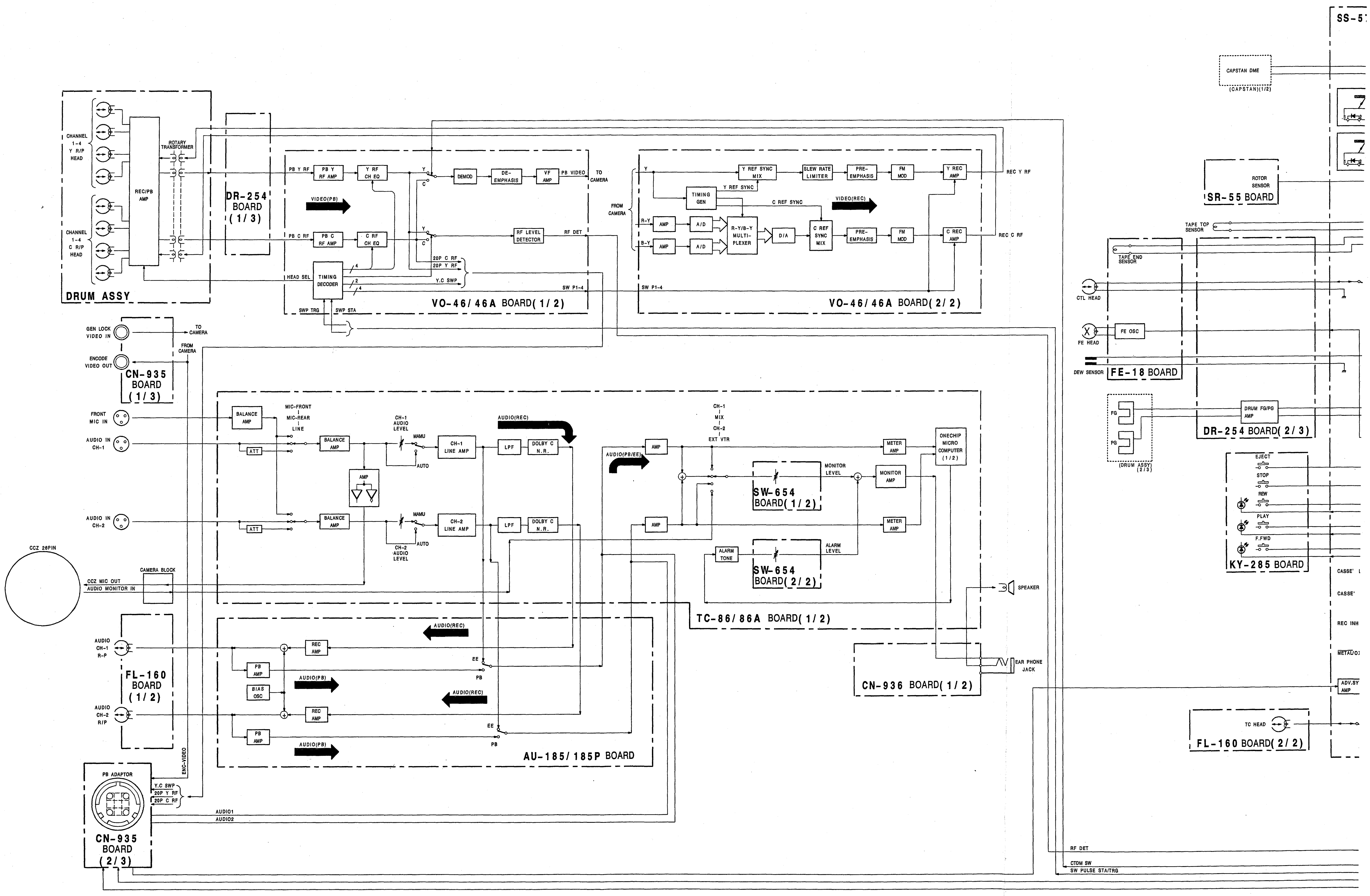
VTR, 26PIN INTERFACE

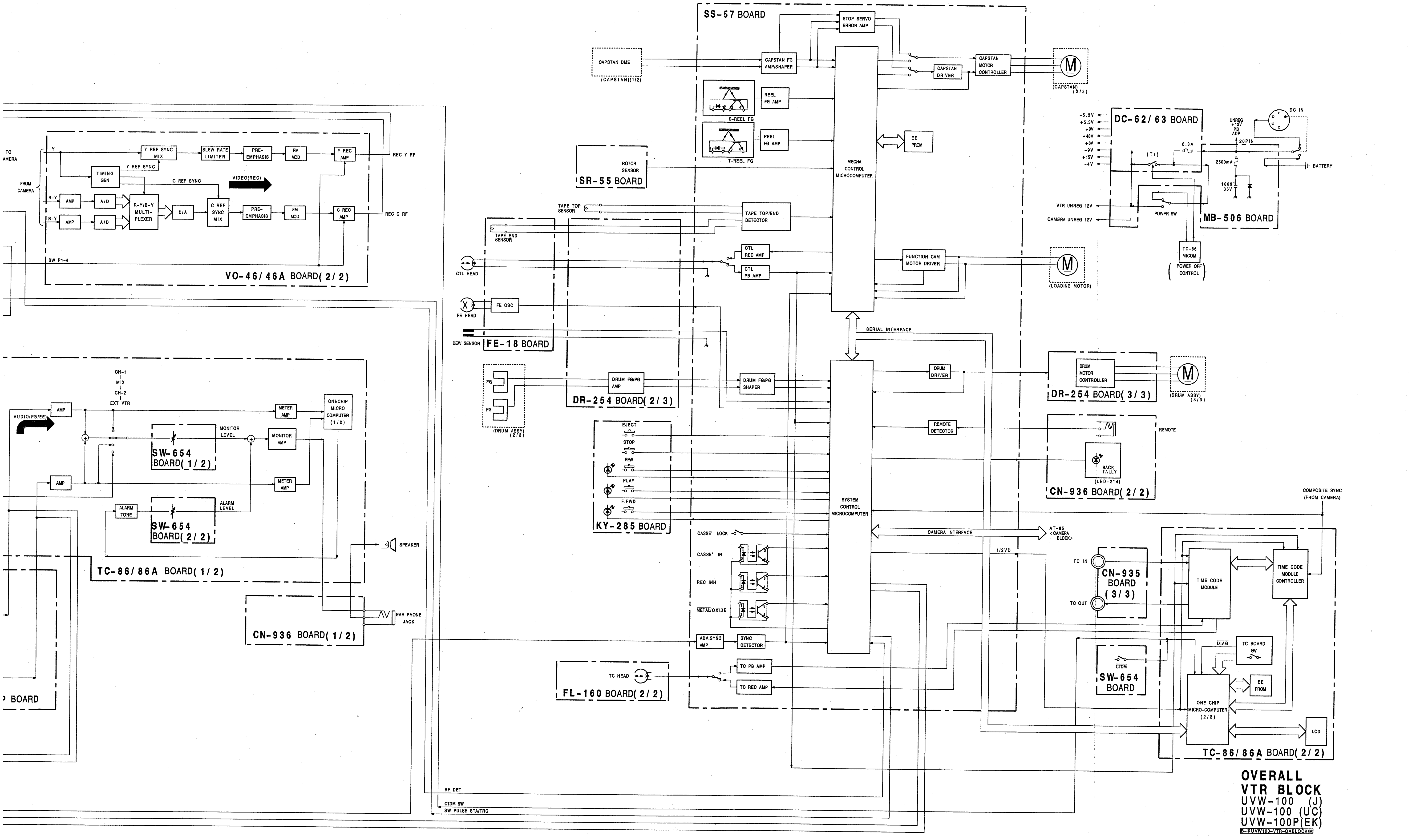

ES A24 → B11 Y(COMP) IN
Q31 BUFF
RV4 Y(COMP) GAIN
Q32, Q33 Y(COMP) AMP
Y(COMP) OUT (X) A13 → MB-530 24-15
Q35, Q36 Y(COMP) AMP
Q37-Q41 75-OHM DRIVER
RV5 Y(COMP) LEVEL
Y(COMP) OUT (X) A21 → MB-530 26-6
Q44 CLAMP
Q60 CLAMP
*1
SERIAL NO.
(UC) 10001 - 11235
(J) 30001 - 30490
(EK) 40001 - 41350
IF-539 (1/2)
Q3 CLAMP
RV2 R-Y BLACK ADJ
Q2 CLAMP
RV1 B-Y BLACK ADJ
*1
SERIAL NO.
(UC) 11236 - 11865
(J) 30491 - 30520
(EK) 41351 - 42960
*1
IC2(1/3)
Q45, Q46 BUFF
RV6 R-Y GAIN
Q47, Q48 R-Y AMP
R-Y OUT(X) A11 → MB-530 24-17
PR B18 → B9 R-Y IN
Q42 BUFF
DL1 DELAY
Q82 AMP
Q43 BUFF
Q44 CLAMP
RV2 R-Y BLACK ADJ
Q50, Q51 R-Y AMP
Q52-Q56 75-OHM DRIVER
RV7 R-Y LEVEL
R-Y OUT(X) A19 → MB-530 26-7
PR B17 → B7 -(B-Y) IN
Q57 INV
Q58 BUFF
DL2 DELAY
Q81 AMP
Q59 BUFF
Q60 CLAMP
RV1 B-Y BLACK ADJ
IC2(2/3)
Q61, Q62 BUFF
RV8 B-Y GAIN
Q63, Q64 B-Y AMP
B-Y OUT(X) A9 → MB-530 24-19
MB-530 IC7-49 → B6 CLP2 IN
Q83 INV
IF-539 (2/2)
Q1 INV
SERIAL NO.
(UC) 11236 - 11865
(J) 30491 - 30520
(EK) 41351 - 42960
SHORT SERIAL NO.
(UC) 10001 - 11235
(J) 30001 - 30490
(EK) 40001 - 41350
Q66, Q67 B-Y AMP
Q68-Q72 75-OHM DRIVER
RV9 B-Y LEVEL
B-Y OUT(X) A17 → MB-530 26-9
ES B9 → B3 C.BLKG IN
AT A13 → B14 VF VIDEO E/I IN
MB-530 24-13 → B5 RET VTR IN
Q73 BUFF
IC2(3/3)
Q74 BUFF
RET Y OUT B20 → ES A22
MB-530 27-6 → A15 RET CCZ IN (X)
Q75-Q77 RET CCZ AMP
Q78 BUFF
ES A12 → B17 VBS(VTR) IN
Q4 BUFF
Q5 BUFF
Q6, Q7 VBS AMP
RV1 VBS LEVEL
Q8-Q12 75-OHM DRIVER
VBS(PBA) OUT(X) A7 → MB-530 24-11
VBS(REAR) OUT(X) A5 → MB-530 25-11
ES A18 → B25 Y(Y/C) IN
Q13 BUFF
IC1(1/3)
Q14 BUFF
Q15, Q16 VBS/Y AMP
RV2 VBS/Y LEVEL
Q17-Q21 75-OHM DRIVER
VBS/Y(Y/C) OUT(X) A25 → MB-530 26-3
AT A19 → B21 VTR SELECT IN
ES A7 → B13 CF IN
ES A17 → B23 CHROMA IN
Q22 BUFF
IC1(2/3)
Q23, Q24 CF/C AMP
RV3 CHROMA LEVEL
Q25-Q29 75-OHM DRIVER
CF/C OUT(X) A23 → MB-530 27-11
Q30 BUFF
CF OUT A3 → MB-530 25-4
POWER SAVE CIRCUIT
Q2
+9V
Q3
-5V
MB-530 26-1 → A28 EXT DC IN(X)
Q1 26P DETECT

IF-454 BLOCK

UVW-100(J)
UVW-100(UC)
UVW-100P(EK)
B-Y UVW100-IF454BLOCK/M

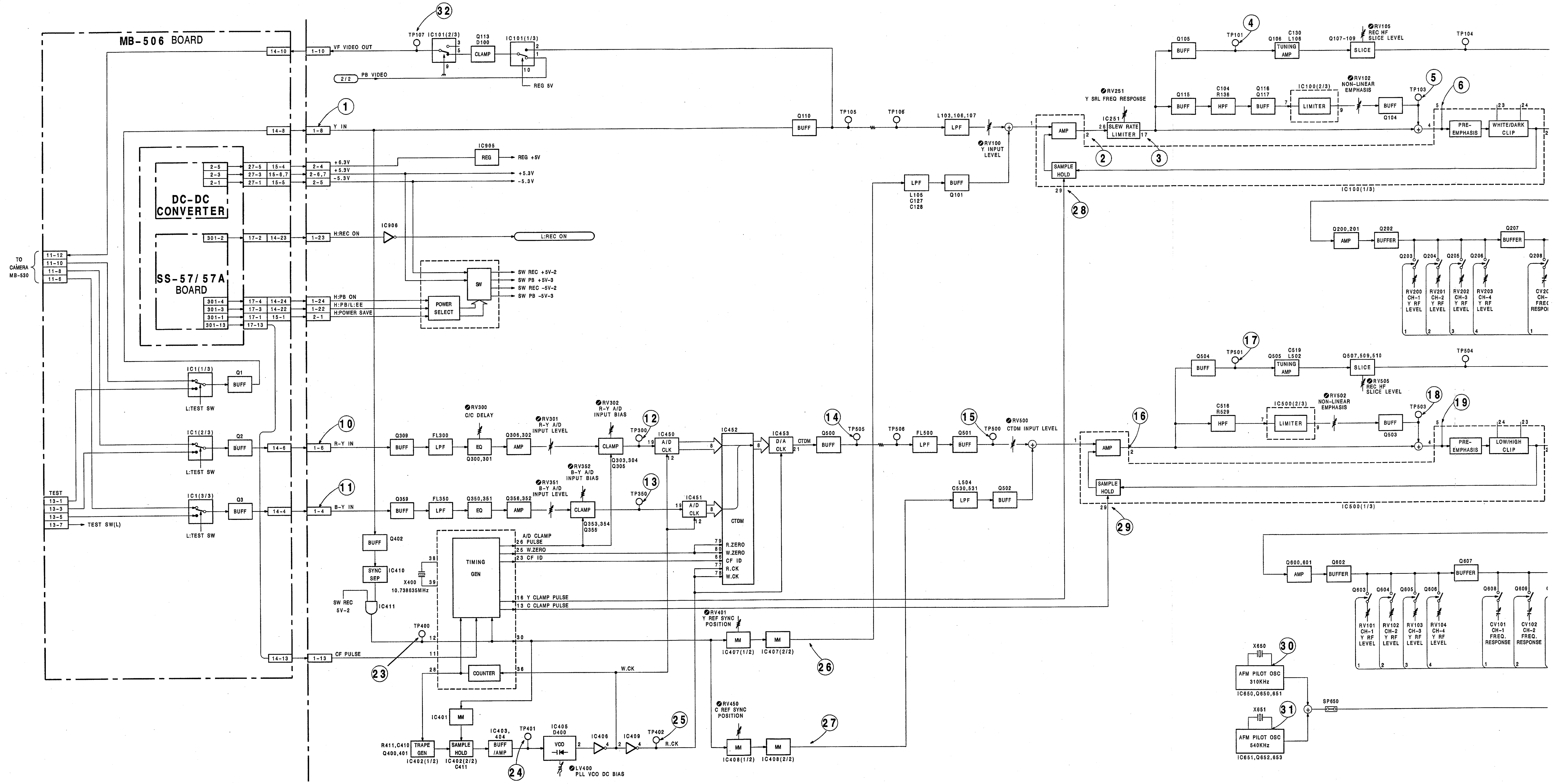
OVERALL BLOCK(VTR)

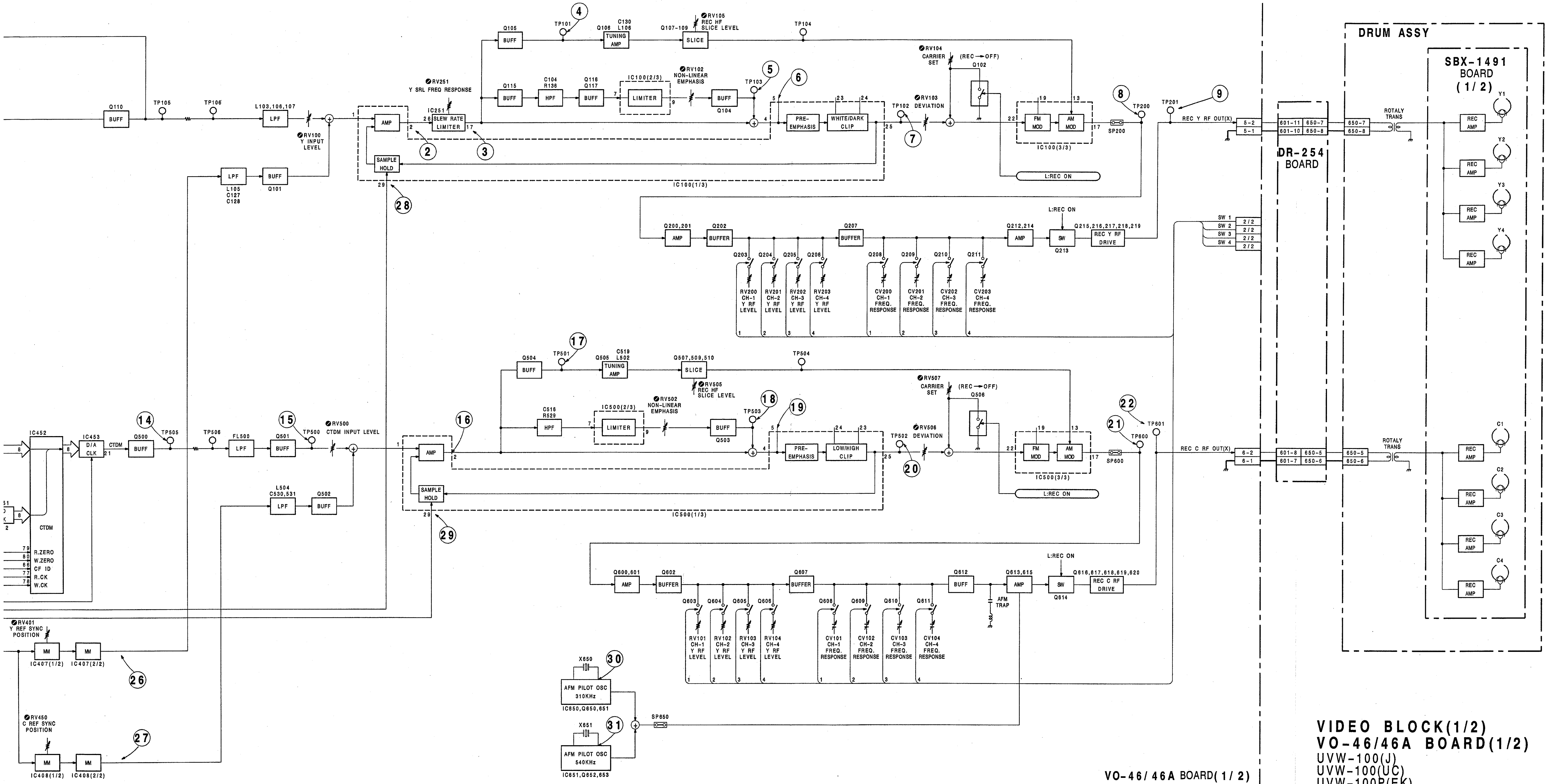

CHANNEL 1-4 Y R/P HEAD
CHANNEL 1-4 C R/P HEAD
REC/PB AMP
ROTARY TRANSFORMER
DRUM ASSY
DR-254 BOARD (1/3)
PB Y RF
PB Y RF AMP
Y RF CH EQ
PB C RF
PB C RF AMP
C RF CH EQ
VIDEO(PB)
DEMOD
DE-EMPHASIS
VF AMP
PB VIDEO
TO CAMERA
RF LEVEL DETECTOR
RF DET
HEAD SEL
TIMING DECODER
20P C RF
20P Y RF
Y.C SWP
SW P1-4
SWP TRG
SWP STA
VO-46/46A BOARD(1/2)
FROM CAMERA
Y
R-Y
B-Y
AMP
A/D
TIMING GEN
Y REF SYNC MIX
Y REF SYNC
C REF SYNC
R-Y/B-Y MULTI-PLEXER
D/A
C REF SYNC MIX
SLEW RATE LIMITER
PRE-EMPHASIS
FM MOD
Y REC AMP
C REC AMP
VIDEO(REC)
REC Y RF
REC C RF
VO-46/46A BOARD(2/2)
GEN LOCK VIDEO IN
ENCODE VIDEO OUT
TO CAMERA
FROM CAMERA
CN-935 BOARD (1/3)
FRONT MIC IN
AUDIO IN CH-1
AUDIO IN CH-2
BALANCE AMP
MIC-FRONT | MIC-REAR | LINE
ATT
CH-1 AUDIO LEVEL
CH-2 AUDIO LEVEL
MAMU
AUTO
CH-1 LINE AMP
CH-2 LINE AMP
LPF
DOLBY C N.R.
AUDIO(REC)
AUDIO(PB/EE)
CH-1 | MIX | CH-2
EXT VTR
METER AMP
MONITOR AMP
MONITOR LEVEL
ONECHIP MICRO COMPUTER (1/2)
SW-654 BOARD(1/2)
SW-654 BOARD(2/2)
ALARM TONE
ALARM LEVEL
SPEAKER
TC-86/86A BOARD(1/2)
CCZ 26PIN
CAMERA BLOCK
CCZ MIC OUT
AUDIO MONITOR IN
AUDIO CH-1 R-P
AUDIO CH-2 R/P
FL-160 BOARD (1/2)
REC AMP
PB AMP
BIAS OSC
AUDIO(PB)
EE
PB
AU-185/185P BOARD
CN-936 BOARD(1/2)
EAR PHONE JACK
PB ADAPTOR
ENC-VIDEO
AUDIO1
AUDIO2
CN-935 BOARD (2/3)
RF DET
CTDM SW
SW PULSE STA/TRG
SS-5
CAPSTAN DME
(CAPSTAN)(1/2)
ROTOR SENSOR
SR-55 BOARD
TAPE TOP SENSOR
TAPE END SENSOR
CTL HEAD
FE HEAD
FE OSC
DEW SENSOR
FE-18 BOARD
FG
PG
(DRUM ASSY) (2/3)
DRUM FG/PG AMP
DR-254 BOARD(2/3)
EJECT
STOP
REW
PLAY
F.FWD
KY-285 BOARD
CASSE' I
CASSE'
REC INH
METAL/O
ADV.SY AMP
TC HEAD
FL-160 BOARD(2/2)


SS-57 BOARD
STOP SERVO ERROR AMP
CAPSTAN DME
(CAPSTAN)(1/2)
CAPSTAN FG AMP/SHAPER
CAPSTAN DRIVER
CAPSTAN MOTOR CONTROLLER
M
(CAPSTAN) (2/2)
REEL FG AMP
S-REEL FG
REEL FG AMP
T-REEL FG
EE PROM
MECHA CONTROL MICROCOMPUTER
ROTOR SENSOR
SR-55 BOARD
TAPE TOP SENSOR
TAPE TOP/END DETECTOR
TAPE END SENSOR
CTL REC AMP
CTL PB AMP
CTL HEAD
FUNCTION CAM MOTOR DRIVER
(LOADING MOTOR)
FE OSC
FE HEAD
DEW SENSOR
FE-18 BOARD
SERIAL INTERFACE
FG
PG
(DRUM ASSY) (2/3)
DRUM FG/PG AMP
DR-254 BOARD(2/ 3)
DRUM FG/PG SHAPER
DRUM DRIVER
DRUM MOTOR CONTROLLER
DR-254 BOARD(3/ 3)
(DRUM ASSY) (3/3)
EJECT
STOP
REW
PLAY
F.FWD
KY-285 BOARD
REMOTE DETECTOR
REMOTE
BACK TALLY
(LED-214)
CN-936 BOARD(2/ 2)
SYSTEM CONTROL MICROCOMPUTER
CASSE' LOCK
CASSE' IN
REC INH
METAL/OXIDE
CAMERA INTERFACE
AT-85 <CAMERA BLOCK>
1/2VD
ADV.SYNC AMP
SYNC DETECTOR
TC HEAD
TC PB AMP
TC REC AMP
FL-160 BOARD(2/ 2)
-5.3V
+5.3V
+9V
+48V
+6V
-9V
+15V
-4V
DC-62/ 63 BOARD
UNREG +12V PB ADP
DC IN
20PIN
(Tr)
6.3A
2500mA
1000μ 35V
BATTERY
VTR UNREG 12V
CAMERA UNREG 12V
POWER SW
MB-506 BOARD
TC-86 MICOM
(POWER OFF CONTROL)
COMPOSITE SYNC (FROM CAMERA)
TC IN
TC OUT
CN-935 BOARD (3/ 3)
TIME CODE MODULE
TIME CODE MODULE CONTROLLER
DIAG
TC BOARD SW
CTDM
SW-654 BOARD
EE PROM
ONE CHIP MICRO-COMPUTER (2/2)
LCD
TC-86/ 86A BOARD(2/ 2)
TO CAMERA
FROM CAMERA
Y
R-Y
B-Y
AMP
A/D
TIMING GEN
Y REF SYNC
Y REF SYNC MIX
SLEW RATE LIMITER
PRE-EMPHASIS
FM MOD
Y REC AMP
REC Y RF
C REF SYNC
VIDEO(REC)
R-Y/B-Y MULTI-PLEXER
D/A
C REF SYNC MIX
C REC AMP
REC C RF
SW P1-4
VO-46/ 46A BOARD(2/ 2)
CH-1
MIX
CH-2
EXT VTR
AUDIO(PB/EE)
METER AMP
ONECHIP MICRO COMPUTER (1/2)
MONITOR LEVEL
SW-654 BOARD(1/ 2)
MONITOR AMP
ALARM TONE
ALARM LEVEL
SW-654 BOARD(2/ 2)
SPEAKER
TC-86/ 86A BOARD(1/ 2)
EAR PHONE JACK
CN-936 BOARD(1/ 2)
BOARD
RF DET
CTDM SW
SW PULSE STA/TRG

OVERALL
VTR BLOCK
UVW-100 (J)
UVW-100 (UC)
UVW-100P(EK)
B-¥UVW100-VTR-OABLOCK/M

VIDEO SIGNAL PROCESS


MB-506 BOARD
DC-DC CONVERTER
SS-57/57A BOARD
TO CAMERA MB-530
TEST
TEST SW(L)
VF VIDEO OUT
PB VIDEO
Y IN
R-Y IN
B-Y IN
CF PULSE
H:REC ON
L:REC ON
H:PB ON
H:PB/L:EE
H:POWER SAVE
POWER SELECT
SW
SW REC +5V-2
SW PB +5V-3
SW REC -5V-2
SW PB -5V-3
+6.3V
+5.3V
-5.3V
REG +5V
REG 5V
IC905 REG
IC906
IC1(1/3) IC1(2/3) IC1(3/3)
L:TEST SW
Q1 Q2 Q3 BUFF
TP107 IC101(2/3) Q113 D100 CLAMP IC101(1/3)
Q110 BUFF TP105 TP106 L103,106,107 LPF
RV100 Y INPUT LEVEL
LPF L105 C127 C128 BUFF Q101
RV251 Y SRL FREQ RESPONSE
IC251 SLEW RATE LIMITER
AMP
SAMPLE HOLD
IC100(1/3)
Q105 BUFF TP101 Q106 C130 L106 TUNING AMP Q107-109 SLICE
RV105 REC HF SLICE LEVEL
TP104
Q115 BUFF C104 R136 HPF Q116 Q117 BUFF IC100(2/3) LIMITER
RV102 NON-LINEAR EMPHASIS
BUFF Q104 TP103
PRE-EMPHASIS
WHITE/DARK CLIP
Q200,201 AMP Q202 BUFFER Q207 BUFFER
Q203 Q204 Q205 Q206 Q208
RV200 CH-1 Y RF LEVEL
RV201 CH-2 Y RF LEVEL
RV202 CH-3 Y RF LEVEL
RV203 CH-4 Y RF LEVEL
Q309 BUFF FL300 LPF EQ Q300,301 Q306,302 AMP
RV300 C/C DELAY
RV301 R-Y A/D INPUT LEVEL
RV302 R-Y A/D INPUT BIAS
CLAMP Q303,304 Q305
TP300 IC450 A/D CLK
Q359 BUFF FL350 LPF Q350,351 EQ Q356,352 AMP
RV351 B-Y A/D INPUT LEVEL
RV352 B-Y A/D INPUT BIAS
CLAMP Q353,354 Q355
TP350 IC451 A/D CLK
IC452 CTDM
R.ZERO W.ZERO CF ID R.CK W.CK
IC453 D/A CLK CTDM
Q500 BUFF TP505 TP506 FL500 LPF Q501 BUFF TP500
RV500 CTDM INPUT LEVEL
L504 C530,531 LPF Q502 BUFF
Q504 BUFF TP501 Q505 C519 L502 TUNING AMP Q507,509,510 SLICE
RV505 REC HF SLICE LEVEL
TP504
C516 R529 HPF IC500(2/3) LIMITER
RV502 NON-LINEAR EMPHASIS
BUFF Q503 TP503
PRE-EMPHASIS
LOW/HIGH CLIP
IC500(1/3)
Q600,601 AMP Q602 BUFFER Q607 BUFFER
Q603 Q604 Q605 Q606 Q608 Q609
RV101 CH-1 Y RF LEVEL
RV102 CH-2 Y RF LEVEL
RV103 CH-3 Y RF LEVEL
RV104 CH-4 Y RF LEVEL
CV101 CH-1 FREQ. RESPONSE
CV102 CH-2 FREQ. RESPONSE
Q402 BUFF
SYNC SEP IC410
X400 10.738635MHz
SW REC 5V-2
IC411
TIMING GEN
A/D CLAMP PULSE
W.ZERO
CF ID
Y CLAMP PULSE
C CLAMP PULSE
COUNTER
W.CK
TP400
IC401 MM
R411,C410 Q400,401 TRAPE GEN IC402(1/2)
SAMPLE HOLD IC402(2/2) C411
IC403,404 BUFF /AMP
TP401
IC405 D400 VCO
LV400 PLL VCO DC BIAS
IC406 IC409 TP402 R.CK
RV401 Y REF SYNC POSITION
MM IC407(1/2) MM IC407(2/2)
RV450 C REF SYNC POSITION
MM IC408(1/2) MM IC408(2/2)
X650 AFM PILOT OSC 310KHz IC650,Q650,651
X651 AFM PILOT OSC 540KHz IC651,Q652,653
SP650
1 2 3 4 5 6 10 11 12 13 14 15 16 17 18 19 23 24 25 26 27 28 29 30 31 32


Q110
BUFF
TP105
TP106
L103,106,107
LPF
RV100
Y INPUT
LEVEL
LPF
L105
C127
C128
BUFF
Q101
AMP
SAMPLE
HOLD
IC100(1/3)
RV251
Y SRL FREQ RESPONSE
IC251
SLEW RATE
LIMITER
Q105
BUFF
TP101
Q106
C130
L106
TUNING
AMP
Q107-109
RV105
REC HF
SLICE LEVEL
SLICE
TP104
Q115
BUFF
C104
R136
HPF
Q116
Q117
BUFF
IC100(2/3)
LIMITER
RV102
NON-LINEAR
EMPHASIS
BUFF
Q104
TP103
PRE-
EMPHASIS
WHITE/DARK
CLIP
TP102
RV103
DEVIATION
RV104
CARRIER
SET
(REC→OFF)
Q102
FM
MOD
AM
MOD
IC100(3/3)
SP200
TP200
TP201
REC Y RF OUT(X)
L:REC ON
Q200,201
AMP
Q202
BUFFER
Q207
BUFFER
Q212,214
AMP
SW
Q213
Q215,216,217,218,219
REC Y RF
DRIVE
Q203
Q204
Q205
Q206
Q208
Q209
Q210
Q211
RV200
CH-1
Y RF
LEVEL
RV201
CH-2
Y RF
LEVEL
RV202
CH-3
Y RF
LEVEL
RV203
CH-4
Y RF
LEVEL
CV200
CH-1
FREQ.
RESPONSE
CV201
CH-2
FREQ.
RESPONSE
CV202
CH-3
FREQ.
RESPONSE
CV203
CH-4
FREQ.
RESPONSE
SW 1
SW 2
SW 3
SW 4
DR-254
BOARD
DRUM ASSY
SBX-1491
BOARD
(1/2)
ROTALY
TRANS
REC
AMP
Y1
Y2
Y3
Y4
C1
C2
C3
C4
IC452
IC453
D/A
CLK
CTDM
CTDM
R.ZERO
W.ZERO
CF ID
R.CK
W.CK
Q500
BUFF
TP505
TP506
FL500
LPF
Q501
BUFF
TP500
RV500
CTDM INPUT LEVEL
L504
C530,531
LPF
Q502
BUFF
AMP
SAMPLE
HOLD
IC500(1/3)
Q504
BUFF
TP501
Q505
C519
L502
TUNING
AMP
Q507,509,510
SLICE
RV505
REC HF
SLICE LEVEL
TP504
C516
R529
HPF
IC500(2/3)
LIMITER
RV502
NON-LINEAR
EMPHASIS
BUFF
Q503
TP503
PRE-
EMPHASIS
LOW/HIGH
CLIP
TP502
RV506
DEVIATION
RV507
CARRIER
SET
(REC→OFF)
Q506
FM
MOD
AM
MOD
IC500(3/3)
SP600
TP600
TP601
REC C RF OUT(X)
L:REC ON
Q600,601
AMP
Q602
BUFFER
Q607
BUFFER
Q612
BUFF
Q613,615
AMP
SW
Q614
Q616,617,618,619,620
REC C RF
DRIVE
AFM
TRAP
Q603
Q604
Q605
Q606
Q608
Q609
Q610
Q611
RV101
CH-1
Y RF
LEVEL
RV102
CH-2
Y RF
LEVEL
RV103
CH-3
Y RF
LEVEL
RV104
CH-4
Y RF
LEVEL
CV101
CH-1
FREQ.
RESPONSE
CV102
CH-2
FREQ.
RESPONSE
CV103
CH-3
FREQ.
RESPONSE
CV104
CH-4
FREQ.
RESPONSE
RV401
Y REF SYNC
POSITION
MM
IC407(1/2)
IC407(2/2)
RV450
C REF SYNC
POSITION
MM
IC408(1/2)
IC408(2/2)
X650
AFM PILOT OSC
310KHz
IC650,Q650,651
X651
AFM PILOT OSC
540KHz
IC651,Q652,653
SP650
②
③
④
⑤
⑥
⑦
⑧
⑨
⑭
⑮
⑯
⑰
⑱
⑲
⑳
㉑
㉒
㉖
㉗
㉘
㉙
㉚
㉛
VO-46/46A BOARD(1/2)

VIDEO BLOCK(1/2)
VO-46/46A BOARD(1/2)

UVW-100(J)
UVW-100(UC)
UVW-100P(EK)
B-1 UVW100-VIDEOBLOCK/MJ1

VIDEO SIGNAL PROCESS

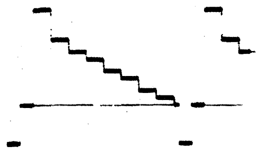
RECモード...信号発生器(テクトロニクスTSG-300または同等品)出力の75% COLOR BARSの記録状態。

PBモード.....アライメントテープCR5-1BのCOLOR BARS部分の再生状態。

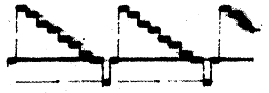
REC mode......[for NTSC]
Record the 75% color bars signal which output from the Component Television Generator (Tektronix TSG-300 or equivalent).
[for PAL]
Record the 100% color bars signal which output from the Component Television Generator (Tektronix TSG-300 or equivalent).

PB mode......... Play back the alignment tape CR5-1B (for NTSC) / CR5-1BPS (for PAL).

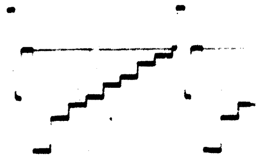
① CN1-pin8 Y 1Vp-p REC mode (NTSC)



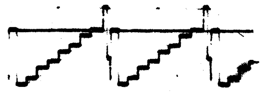
① CN1-pin8 Y 1Vp-p REC mode (PAL)



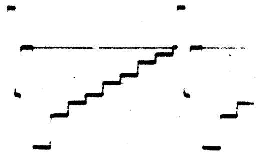
② IC100-pin2 1Vp-p REC mode (NTSC)



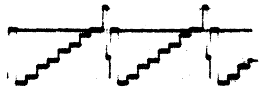
② IC100-pin2 1Vp-p REC mode (PAL)



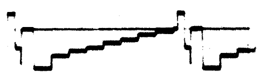
③ IC251-pin17 1Vp-p REC mode (NTSC)



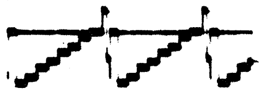
③ IC251-pin17 1Vp-p REC mode (PAL)



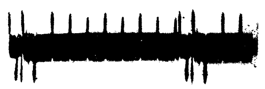
④ ■ TP101 Y 1Vp-p REC mode (NTSC)



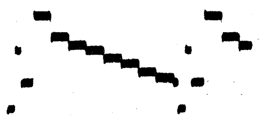
④ ■ TP101 Y 1Vp-p REC mode (PAL)



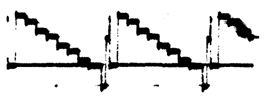
⑤ ■ TP103 REC mode 100mVp-p



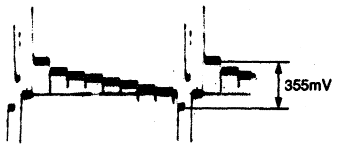
⑥ IC100-pin5 380mVp-p REC mode (NTSC)



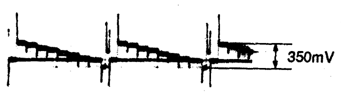
⑥ IC100-pin5 370mVp-p REC mode (PAL)



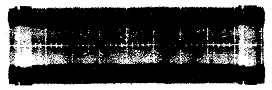
⑦ ■ TP102 REC mode (NTSC)



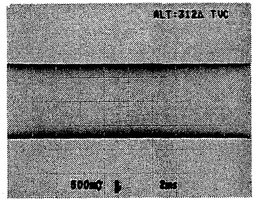
⑦ ■ TP102 REC mode (PAL)



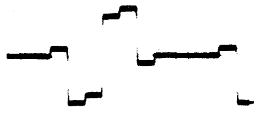
⑧ ■ TP200 Y-FM, REC mode 410mV



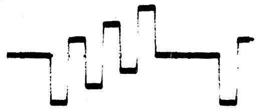
⑨ TP201 REC Y RF 1.5Vp-p REC mode



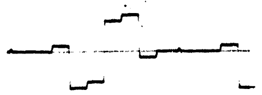
⑩ CN1-pin6 R-Y 700mVp-p REC mode



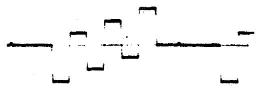
⑪ CN1-pin4 B-Y 700mVp-p REC mode



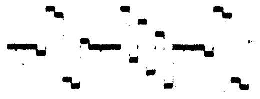
⑫ ■ TP300 R-Y, REC mode 1.34Vp-p (NTSC) 1.38Vp-p (PAL)



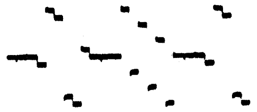
⑬ ■ TP350 B-Y, REC mode 1.34Vp-p (NTSC) 1.38Vp-p (PAL)



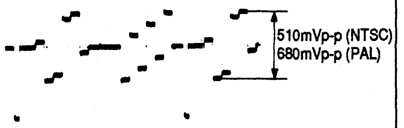
⑭ ■ TP505 CTDM 1.43Vp-p REC mode (NTSC) 1.78Vp-p REC mode (PAL)



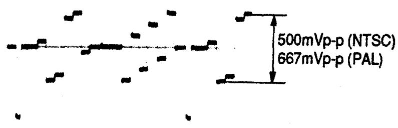
⑮ ■ TP500 CTDM 700mVp-p REC mode



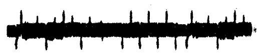
⑯ IC500-pin2 CTDM REC mode



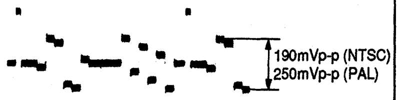
⑰ ■ TP-501 REC mode



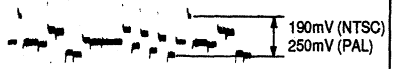
⑱ ■ TP503 REC mode 75mVp-p



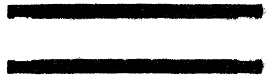
⑲ IC500-pin5 REC mode



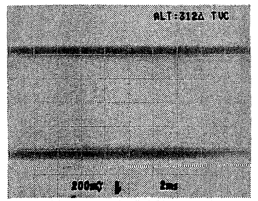
⑳ ■ TP-502 REC mode



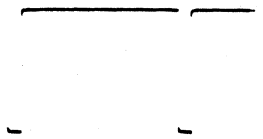
㉑ ■ TP600 C-FM, REC mode 410mVp-p



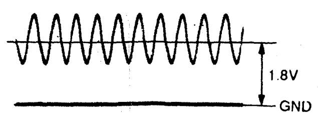
㉒ TP601 REC C RF 0.8Vp-p REC mode (NTSC) 0.9Vp-p REC mode (PAL)



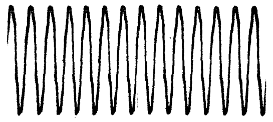
㉓ ■ TP400 COMP SYNC 5.2Vp-p REC mode (NTSC) 5.3Vp-p REC mode (PAL)



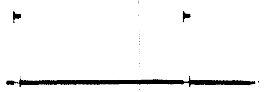
㉔ ■ TP-401 PLL VCO REC mode



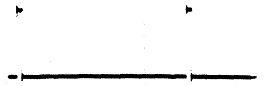
㉕ ■ TP402 R-CK, REC mode 5Vp-p



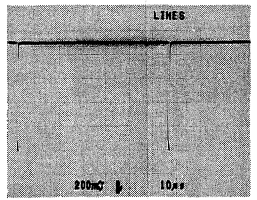
㉖ IC407-pin5 Y REF SYNC 4.9Vp-p REC mode (NTSC) 5.0Vp-p REC mode (PAL)



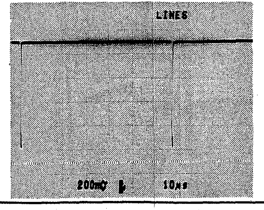
㉗ IC408-pin5 C REF SYNC 4.9Vp-p REC mode (NTSC) 5.0Vp-p REC mode (PAL)



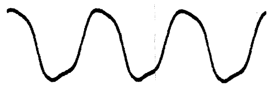
㉘ IC100-pin29 Y CLAMP 900mVp-p REC mode



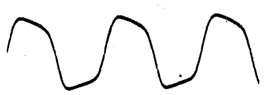
㉙ IC500-pin29 C CLAMP 900mVp-p REC mode (NTSC) 880mVp-p REC mode (PAL)



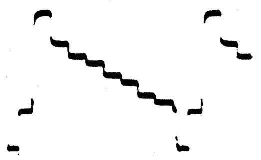
㉚ IC650-pin4 AFM PILOT 5.5Vp-p REC mode (NTSC) 5.4Vp-p REC mode (PAL)



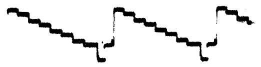
㉛ IC651-pin4 AFM PILOT 5.5Vp-p REC mode (NTSC) 5.4Vp-p REC mode (PAL)



㉜ ■ TP107 PB VIDEO 1.08Vp-p PB mode (NTSC)



㉜ ■ TP107 PB VIDEO 1Vp-p PB mode (PAL)

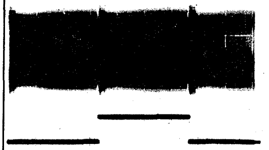


VO-46/46A BLOCK(2/2)

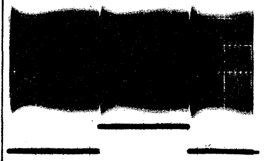
VIDEO SIGNAL PROCESS

RECモード...信号発生器(テクトロニクスTSG-300または同等品)
出力の75% COLOR BARSの記録状態。
PBモード .....アライメントテープCR5-1BのCOLOR BARS部分の
再生状態。
REC mode ......[for NTSC]
Record the 75% color bars signal which output from the Component Television Generator (Tektronix TSG-300 or equivalent).
[for PAL]
Record the 100% color bars signal which output from the Component Television Generator (Tektronix TSG-300 or equivalent).
PB mode......... Play back the alignment tape CR5-1B (for NTSC) / CR5-1BPS (for PAL).

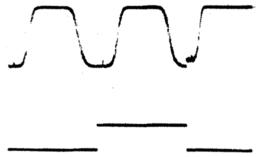
(51) ■ TP700 Y-RF 400mVp-p PB mode



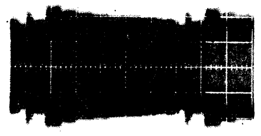
(52) ■ TP750 C-RF 400mVp-p PB mode



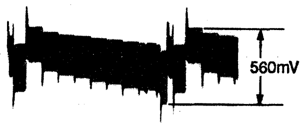
(53) ■ TP850 RF DETECT 4.9Vp-p REC PAUSE mode



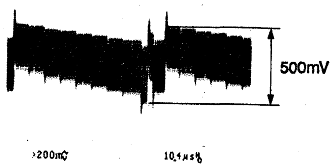
(54) IC801-pin48 PB RF 190mVp-p PB mode (NTSC)
240mVp-p PB mode (PAL)



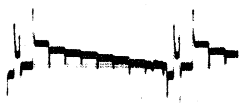
(55) IC801-pin12 DEMOD OUTPUT PB mode (NTSC)



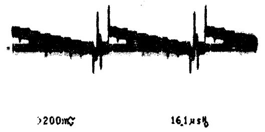
(55) IC801-pin12 DEMOD OUTPUT PB mode (PAL)



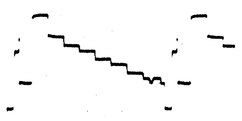
(56) IC801-pin40 230mVp-p PB mode (NTSC)



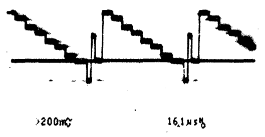
(56) IC801-pin40 230mVp-p PB mode (PAL)



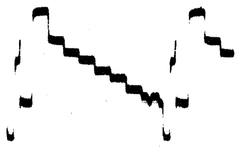
(57) IC801-pin35 800mVp-p PB mode (NTSC)



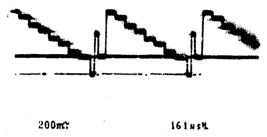
(57) IC801-pin35 800mVp-p PB mode (PAL)



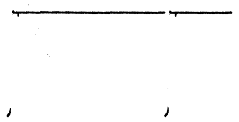
(58) IC801-pin37 520mVp-p PB mode (NTSC)



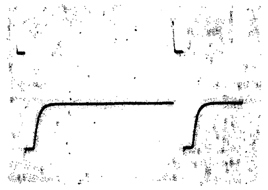
(58) IC801-pin37 530mVp-p PB mode (PAL)



(59) IC801-pin5 CLAMP PULSE 2.1Vp-p PB mode

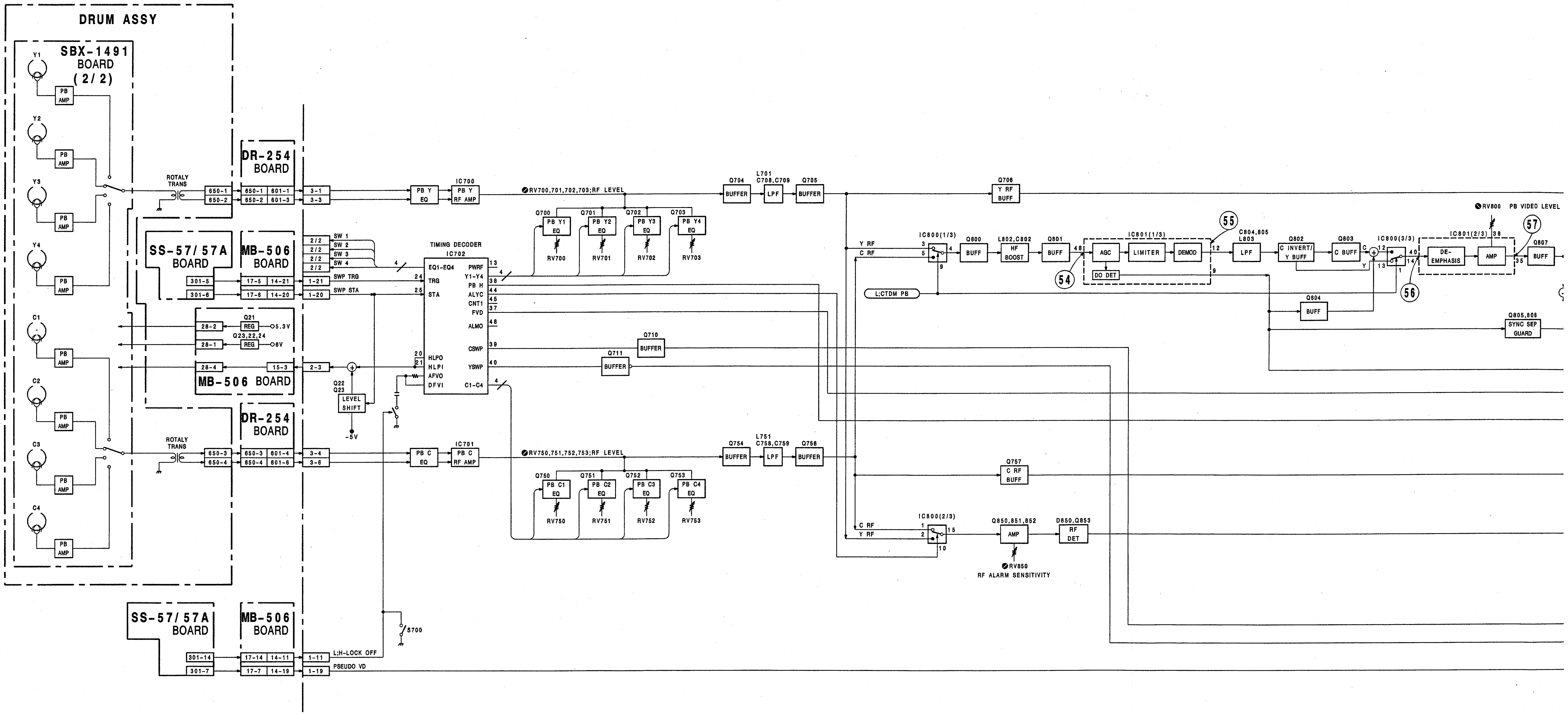


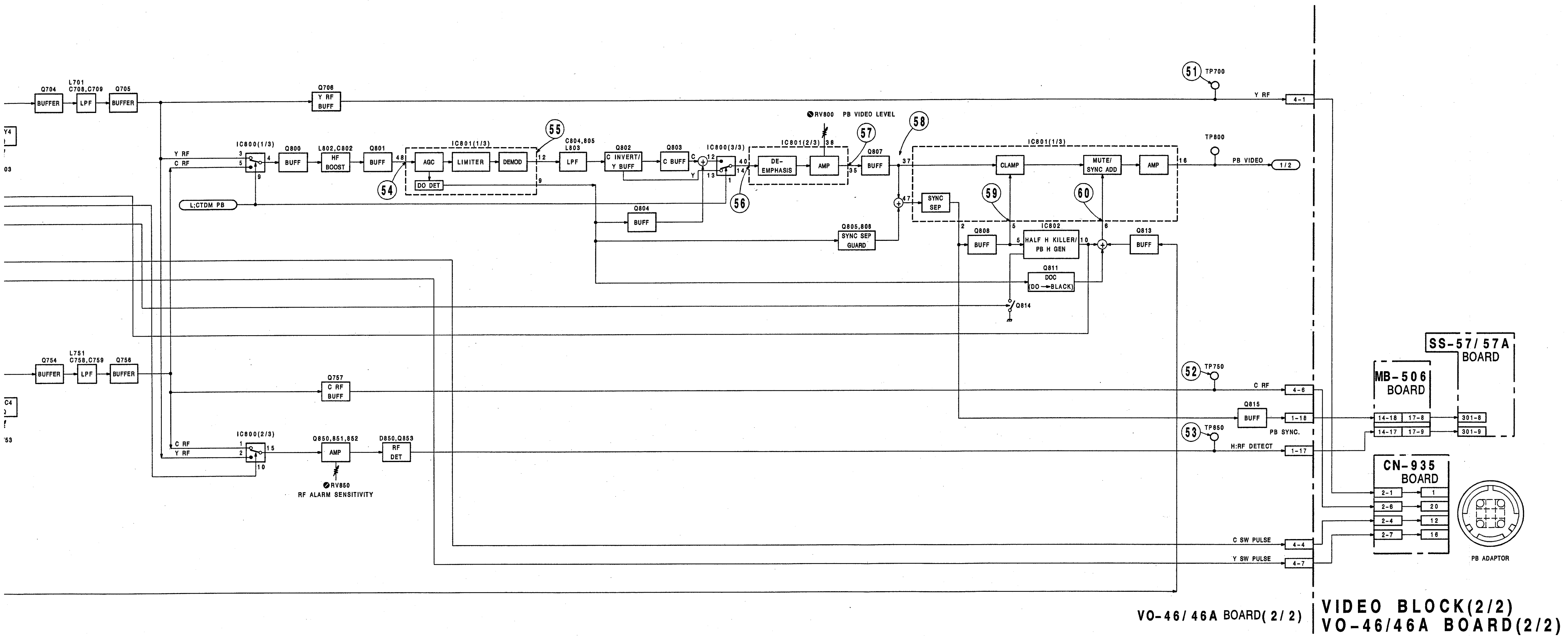
(60) IC801-pin6 5Vp-p PB mode



VO-46/46A BLOCK(2/2)

VIDEO SIGNAL PROCESS

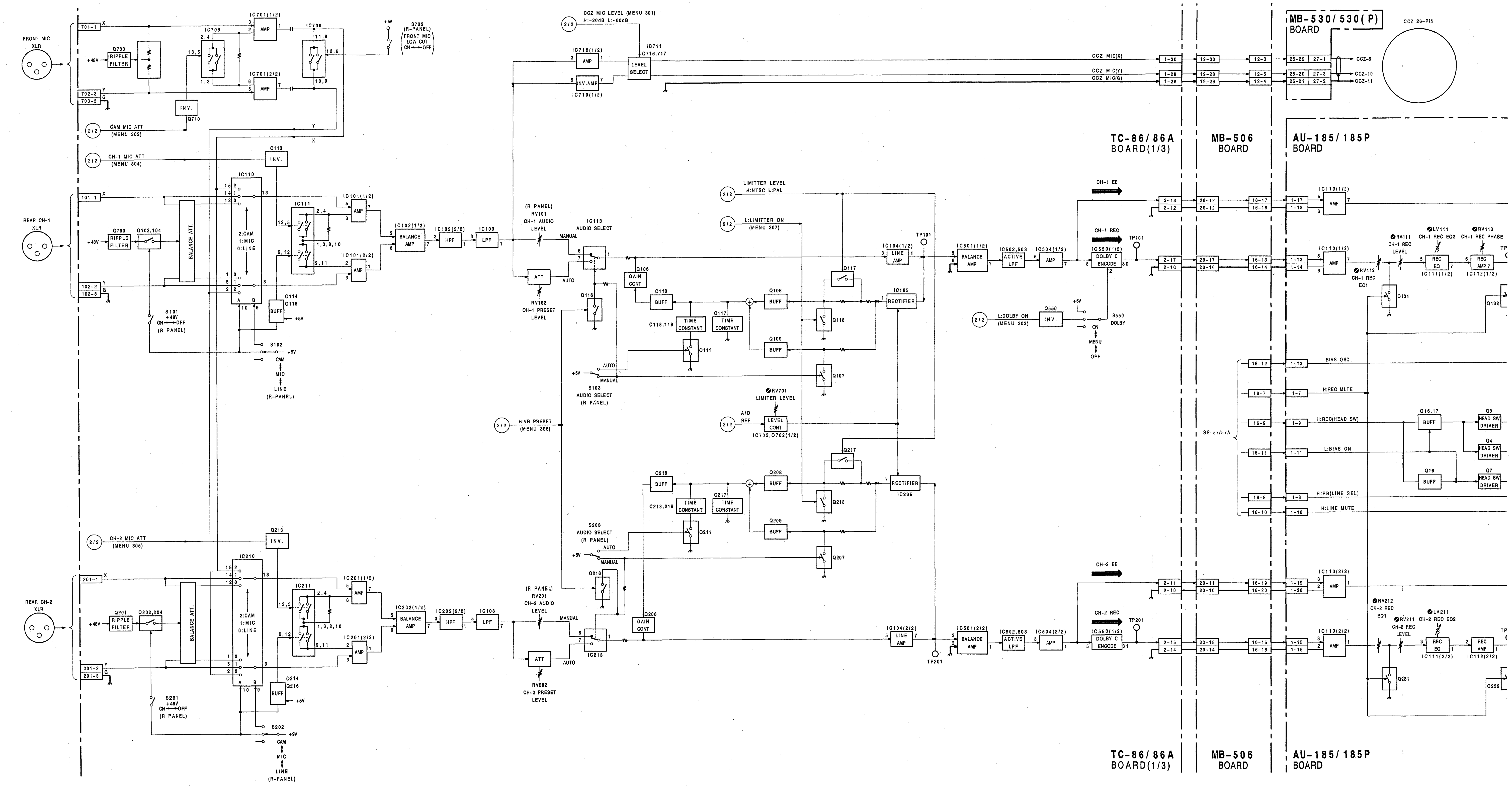

DRUM ASSY
SBX-1491 BOARD (2/2)
Y1
Y2
Y3
Y4
C1
C2
C3
C4
PB AMP
ROTALY TRANS
650-1
650-2
650-3
650-4
DR-254 BOARD
601-1
601-3
601-4
601-6
3-1
3-3
3-4
3-6
SS-57/57A BOARD
301-5
301-6
MB-506 BOARD
17-5
17-6
14-21
14-20
2/2
SW 1
SW 2
SW 3
SW 4
1-21
1-20
SWP TRG
SWP STA
28-2
28-1
28-4
Q21
REG
5.3V
Q23,22,24
6V
15-3
2-3
Q22
Q23
LEVEL SHIFT
-5V
PB Y EQ
IC700
PB Y RF AMP
RV700,701,702,703;RF LEVEL
Q700
PB Y1 EQ
Q701
PB Y2 EQ
Q702
PB Y3 EQ
Q703
PB Y4 EQ
RV700
RV701
RV702
RV703
TIMING DECODER
IC702
EQ1-EQ4
TRG
STA
HLPO
HLPI
AFVO
DFVI
PWRF
Y1-Y4
PB H
ALYC
CNT1
FVD
ALMO
CSWP
YSWP
C1-C4
Q710
BUFFER
Q711
BUFFER
PB C EQ
IC701
PB C RF AMP
RV750,751,752,753;RF LEVEL
Q750
PB C1 EQ
Q751
PB C2 EQ
Q752
PB C3 EQ
Q753
PB C4 EQ
RV750
RV751
RV752
RV753
Q704
BUFFER
L701
C708,C709
LPF
Q705
BUFFER
Q754
BUFFER
L751
C758,C759
LPF
Q756
BUFFER
Q706
Y RF BUFF
Q757
C RF BUFF
Y RF
C RF
IC800(1/3)
Q800
BUFF
L802,C802
HF BOOST
Q801
BUFF
IC801(1/3)
AGC
LIMITER
DEMOD
DO DET
54
55
C804,805
L803
LPF
Q802
C INVERT/ Y BUFF
Q803
C BUFF
IC800(3/3)
IC801(2/3)
DE-EMPHASIS
AMP
RV800 PB VIDEO LEVEL
56
57
Q807
BUFF
L;CTDM PB
Q804
BUFF
Q805,808
SYNC SEP GUARD
IC800(2/3)
Q850,851,852
AMP
D850,Q853
RF DET
RV850
RF ALARM SENSITIVITY
SS-57/57A BOARD
MB-506 BOARD
301-14
301-7
17-14
17-7
14-11
14-19
1-11
1-19
L:H-LOCK OFF
PSEUDO VD
S700


Q704
BUFFER
L701
C708,C709
LPF
Q705
BUFFER
Q706
Y RF
BUFF
Y4
03
Y RF
C RF
IC800(1/3)
3
5
4
9
Q800
BUFF
L802,C802
HF
BOOST
Q801
BUFF
48
IC801(1/3)
AGC
LIMITER
DEMOD
DO DET
12
9
(54)
(55)
C804,805
L803
LPF
Q802
C INVERT/
Y BUFF
Q803
C BUFF
C
Y
IC800(3/3)
12
13
1
40
14
(56)
L;CTDM PB
Q804
BUFF
RV800 PB VIDEO LEVEL
IC801(2/3)
38
DE-
EMPHASIS
AMP
35
(57)
Q807
BUFF
(58)
37
47
Q805,806
SYNC SEP
GUARD
IC801(1/3)
SYNC
SEP
CLAMP
MUTE/
SYNC ADD
AMP
16
(59)
(60)
2
5
6
Q808
BUFF
IC802
5
HALF H KILLER/
PB H GEN
10
Q813
BUFF
Q811
DOC
(DO → BLACK)
Q814
(51)
TP700
Y RF
4-1
TP800
PB VIDEO
1/2
Q754
BUFFER
L751
C758,C759
LPF
Q756
BUFFER
C4
'53
Q757
C RF
BUFF
IC800(2/3)
C RF
Y RF
1
2
15
10
Q850,851,852
AMP
RV850
RF ALARM SENSITIVITY
D850,Q853
RF
DET
(52)
TP750
C RF
4-6
Q815
BUFF
1-18
PB SYNC.
(53)
TP850
H:RF DETECT
1-17
C SW PULSE
4-4
Y SW PULSE
4-7
SS-57/57A
BOARD
MB-506
BOARD
14-18
17-8
14-17
17-9
301-8
301-9
CN-935
BOARD
2-1
1
2-6
20
2-4
12
2-7
16
PB ADAPTOR
VO-46/46A BOARD(2/2)

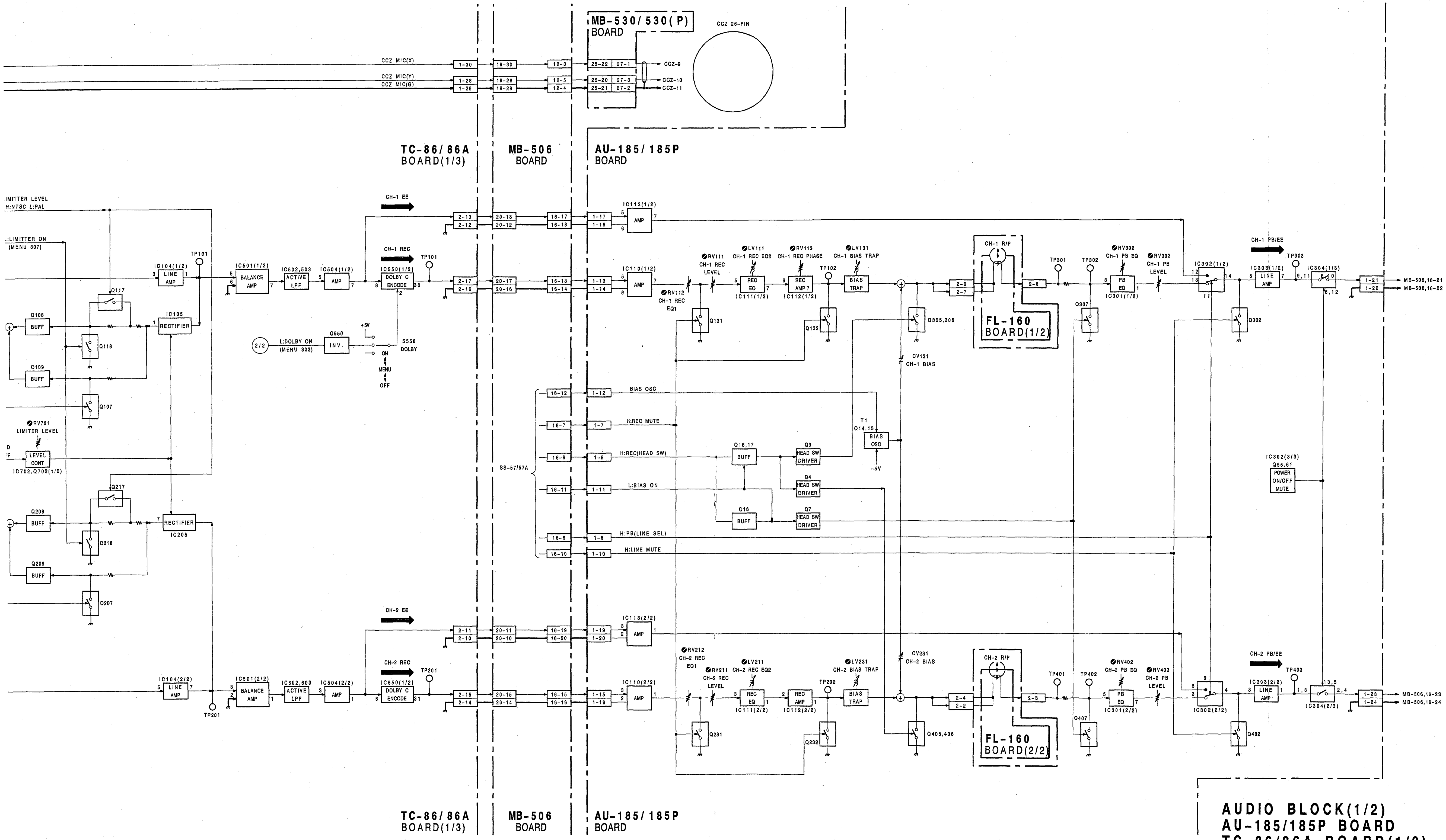
VIDEO BLOCK(2/2)
VO-46/46A BOARD(2/2)

UVW-100(J)
UVW-100(UC)
UVW-100P(EK)
B-¥UVW100-VIDEOBLOCK/M#2

LAU REC/PB AMP
TC GENERATOR AUDIO AMP


FRONT MIC XLR
REAR CH-1 XLR
REAR CH-2 XLR
RIPPLE FILTER
BALANCE ATT.
IC709
IC701(1/2)
IC701(2/2)
AMP
INV.
Q710
S702 (R-PANEL) (FRONT MIC LOW CUT ON↔OFF)
CAM MIC ATT (MENU 302)
CH-1 MIC ATT (MENU 304)
CH-2 MIC ATT (MENU 305)
Q113
Q213
IC110
IC210
2:CAM 1:MIC 0:LINE
IC111
IC211
IC101(1/2)
IC101(2/2)
IC201(1/2)
IC201(2/2)
IC102(1/2) BALANCE AMP
IC102(2/2) HPF
IC202(1/2) BALANCE AMP
IC202(2/2) HPF
IC103 LPF
S101 +48V ON↔OFF (R PANEL)
S201 +48V ON↔OFF (R PANEL)
S102
S202
CAM MIC LINE (R-PANEL)
Q114 Q115 BUFF
Q214 Q215 BUFF
CCZ MIC LEVEL (MENU 301) H:-20dB L:-60dB
IC710(1/2) AMP
IC710(1/2) INV.AMP
IC711 Q716,717 LEVEL SELECT
CCZ MIC(X)
CCZ MIC(Y)
CCZ MIC(G)
(R PANEL) RV101 CH-1 AUDIO LEVEL
(R PANEL) RV201 CH-2 AUDIO LEVEL
MANUAL
AUTO
ATT
RV102 CH-1 PRESET LEVEL
RV202 CH-2 PRESET LEVEL
IC113 AUDIO SELECT
IC213
Q106 GAIN CONT
Q208 GAIN CONT
Q116
Q216
S103 AUDIO SELECT (R PANEL)
S203 AUDIO SELECT (R PANEL)
H:VR PRESET (MENU 306)
Q110 BUFF
Q210 BUFF
C118,119 TIME CONSTANT
C117 TIME CONSTANT
C218,219 TIME CONSTANT
C217 TIME CONSTANT
Q108 BUFF
Q109 BUFF
Q208 BUFF
Q209 BUFF
Q111
Q211
Q107
Q207
Q117
Q118
Q217
Q218
LIMITTER LEVEL H:NTSC L:PAL
L:LIMITTER ON (MENU 307)
RV701 LIMITER LEVEL
A/D REF
LEVEL CONT IC702,Q702(1/2)
IC105 RECTIFIER
IC205 RECTIFIER
IC104(1/2) LINE AMP
IC104(2/2) LINE AMP
TP101
TP201
IC501(1/2) BALANCE AMP
IC501(2/2) BALANCE AMP
IC502,503 ACTIVE LPF
IC602,603 ACTIVE LPF
IC504(1/2) AMP
IC504(2/2) AMP
IC550(1/2) DOLBY C ENCODE
CH-1 EE
CH-1 REC
CH-2 EE
CH-2 REC
L:DOLBY ON (MENU 303)
Q550 INV.
S550 DOLBY
ON MENU OFF
TC-86/86A BOARD(1/3)
MB-506 BOARD
AU-185/185P BOARD
MB-530/530(P) BOARD
CCZ 26-PIN
CCZ-9
CCZ-10
CCZ-11
SS-57/57A
BIAS OSC
H:REC MUTE
H:REC(HEAD SW)
L:BIAS ON
H:PB(LINE SEL)
H:LINE MUTE
IC113(1/2) AMP
IC113(2/2) AMP
IC110(1/2) AMP
IC110(2/2) AMP
RV111 CH-1 REC LEVEL
LV111 CH-1 REC EQ2
RV113 CH-1 REC PHASE
RV112 CH-1 REC EQ1
RV212 CH-2 REC EQ1
RV211 CH-2 REC LEVEL
LV211 CH-2 REC EQ2
REC EQ
REC AMP
IC111(1/2)
IC112(1/2)
IC111(2/2)
IC112(2/2)
Q131
Q231
Q132
Q232
Q16,17 BUFF
Q16 BUFF
Q3 HEAD SW DRIVER
Q4 HEAD SW DRIVER
Q7 HEAD SW DRIVER

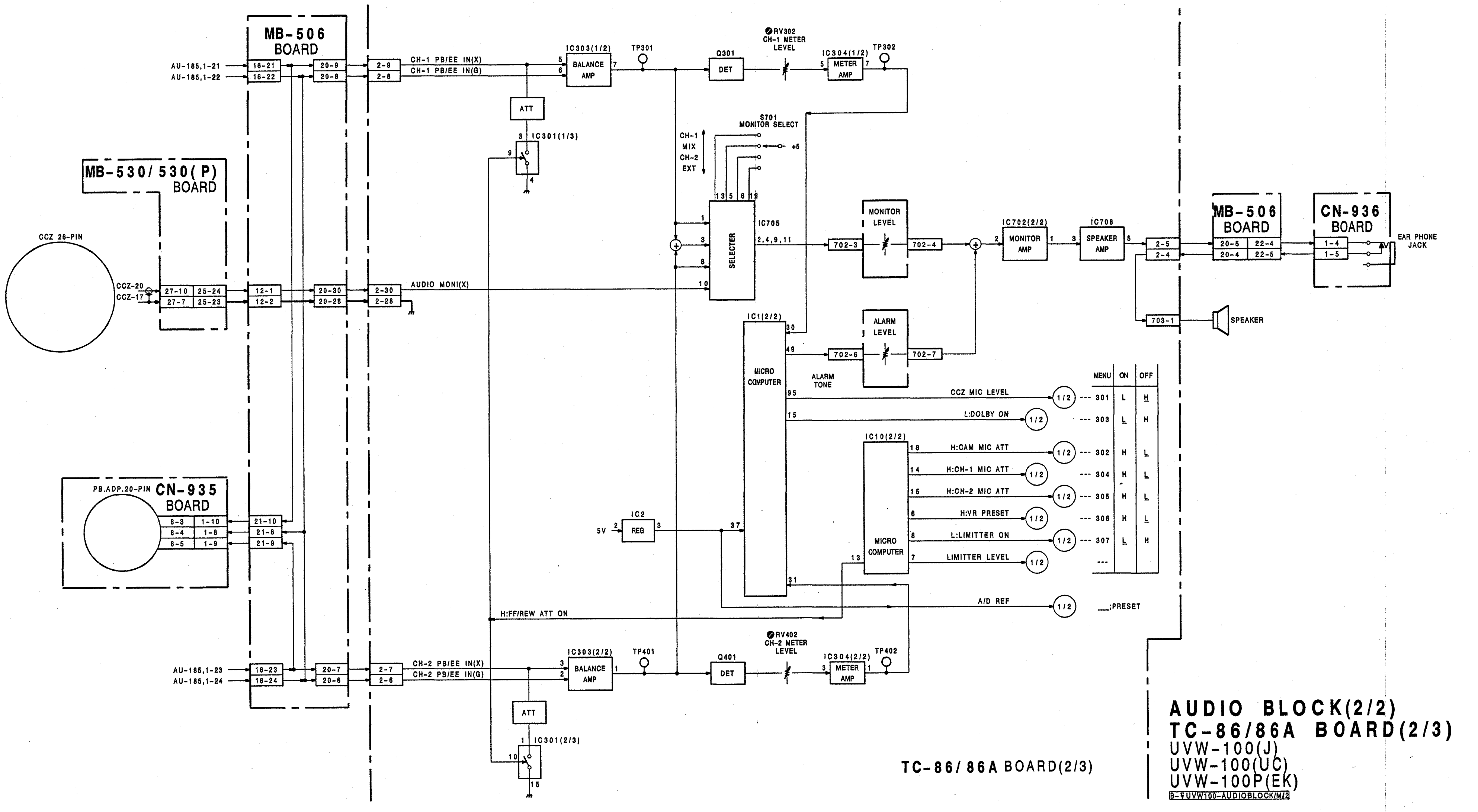
AU-185/185P,MB-506,TC-86/86A(1/3) BLOCK(1/2)


MB-530/530(P) BOARD
CCZ 26-PIN
CCZ MIC(X)
CCZ MIC(Y)
CCZ MIC(G)
CCZ-9
CCZ-10
CCZ-11
TC-86/86A BOARD(1/3)
MB-506 BOARD
AU-185/185P BOARD
LIMITTER LEVEL H:NTSC L:PAL
L:LIMITTER ON (MENU 307)
CH-1 EE
CH-1 REC
CH-2 EE
CH-2 REC
TP101
TP201
IC104(1/2) LINE AMP
IC104(2/2) LINE AMP
IC501(1/2) BALANCE AMP
IC501(2/2) BALANCE AMP
IC502,503 ACTIVE LPF
IC602,603 ACTIVE LPF
IC504(1/2) AMP
IC504(2/2) AMP
IC550(1/2) DOLBY C ENCODE
IC550(1/2) DOLBY C ENCODE
Q117
Q118
Q107
Q108 BUFF
Q109 BUFF
IC105 RECTIFIER
IC205 RECTIFIER
Q217
Q218
Q207
Q208 BUFF
Q209 BUFF
RV701 LIMITER LEVEL
LEVEL CONT
IC702,Q702(1/2)
Q550 INV.
L:DOLBY ON (MENU 303)
2/2
+5V
S550 DOLBY
ON
MENU
OFF
SS-57/57A
IC113(1/2) AMP
IC113(2/2) AMP
IC110(1/2) AMP
IC110(2/2) AMP
RV111 CH-1 REC LEVEL
RV112 CH-1 REC EQ1
LV111 CH-1 REC EQ2
RV113 CH-1 REC PHASE
LV131 CH-1 BIAS TRAP
IC111(1/2) REC EQ
IC112(1/2) REC AMP
BIAS TRAP
TP102
Q131
Q132
RV212 CH-2 REC EQ1
RV211 CH-2 REC LEVEL
LV211 CH-2 REC EQ2
LV231 CH-2 BIAS TRAP
IC111(2/2) REC EQ
IC112(2/2) REC AMP
TP202
Q231
Q232
CV131 CH-1 BIAS
CV231 CH-2 BIAS
Q305,306
Q405,406
CH-1 R/P
CH-2 R/P
FL-160 BOARD(1/2)
FL-160 BOARD(2/2)
TP301
TP302
TP401
TP402
RV302 CH-1 PB EQ
RV303 CH-1 PB LEVEL
RV402 CH-2 PB EQ
RV403 CH-2 PB LEVEL
IC301(1/2) PB EQ
IC301(2/2) PB EQ
Q307
Q407
IC302(1/2)
IC302(2/2)
IC302(3/3)
Q302
Q402
CH-1 PB/EE
CH-2 PB/EE
TP303
TP403
IC303(1/2) LINE AMP
IC303(2/2) LINE AMP
IC304(1/3)
IC304(2/3)
MB-506,16-21
MB-506,16-22
MB-506,16-23
MB-506,16-24
BIAS OSC
H:REC MUTE
H:REC(HEAD SW)
L:BIAS ON
H:PB(LINE SEL)
H:LINE MUTE
T1 Q14,15 BIAS OSC
-5V
Q16,17 BUFF
Q18 BUFF
Q3 HEAD SW DRIVER
Q4 HEAD SW DRIVER
Q7 HEAD SW DRIVER
Q55,61 POWER ON/OFF MUTE

AUDIO BLOCK(1/2)
AU-185/185P BOARD
TC-86/86A BOARD(1/3)

UVW-100(J)
UVW-100(UC)
UVW-100P(EK)
B-1 UVW100-AUDIOBLOCK(M)1

TC GENERATOR AUDIO AMP

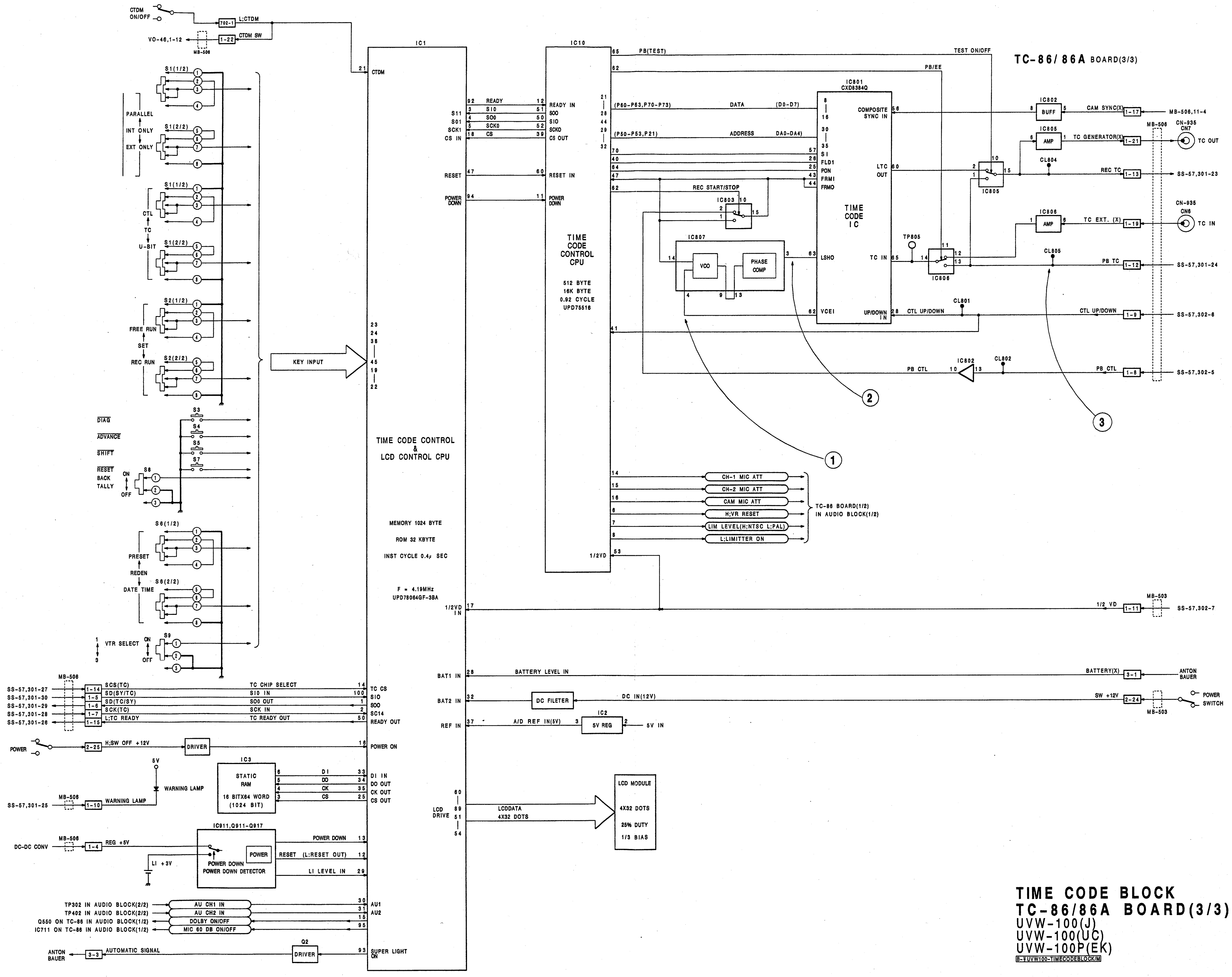

MB-506 BOARD
AU-185,1-21
AU-185,1-22
16-21
16-22
20-9
20-8
2-9
2-8
CH-1 PB/EE IN(X)
CH-1 PB/EE IN(G)
IC303(1/2)
BALANCE AMP
TP301
ATT
IC301(1/3)
MB-530/530(P) BOARD
CCZ 26-PIN
CCZ-20
CCZ-17
27-10
27-7
25-24
25-23
12-1
12-2
20-30
20-28
2-30
2-28
AUDIO MONI(X)
Q301
DET
RV302 CH-1 METER LEVEL
IC304(1/2)
METER AMP
TP302
S701 MONITOR SELECT
CH-1
MIX
CH-2
EXT
+5
IC705
SELECTER
2,4,9,11
702-3
MONITOR LEVEL
702-4
IC702(2/2)
MONITOR AMP
IC708
SPEAKER AMP
2-5
2-4
MB-506 BOARD
20-5
20-4
22-4
22-5
CN-936 BOARD
1-4
1-5
EAR PHONE JACK
703-1
SPEAKER
IC1(2/2)
MICRO COMPUTER
702-6
ALARM LEVEL
702-7
ALARM TONE
CCZ MIC LEVEL
L:DOLBY ON
IC10(2/2)
MICRO COMPUTER
H:CAM MIC ATT
H:CH-1 MIC ATT
H:CH-2 MIC ATT
H:VR PRESET
L:LIMITTER ON
LIMITTER LEVEL
1/2
MENU ON OFF
--- 301 L H
--- 303 L H
--- 302 H L
--- 304 H L
--- 305 H L
--- 306 H L
--- 307 L H

A/D REF
___;PRESET
IC2
REG
5V
PB.ADP.20-PIN CN-935 BOARD
8-3
8-4
8-5
1-10
1-8
1-9
21-10
21-8
21-9
H:FF/REW ATT ON
AU-185,1-23
AU-185,1-24
16-23
16-24
20-7
20-6
2-7
2-6
CH-2 PB/EE IN(X)
CH-2 PB/EE IN(G)
IC303(2/2)
BALANCE AMP
TP401
ATT
IC301(2/3)
Q401
DET
RV402 CH-2 METER LEVEL
IC304(2/2)
METER AMP
TP402

TC-86/86A BOARD(2/3)

AUDIO BLOCK(2/2)
TC-86/86A BOARD(2/3)
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)
B-¥UVW100-AUDIOBLOCK/M/2

TC GENERATOR AUDIO AMP


CTDM ON/OFF
L:CTDM
CTDM SW
VO-46,1-12
MB-506
IC1
CTDM
S1(1/2)
PARALLEL
INT ONLY
EXT ONLY
S1(2/2)
CTL
TC
U-BIT
S2(1/2)
FREE RUN
SET
REC RUN
S2(2/2)
KEY INPUT
DIAG
ADVANCE
SHIFT
RESET BACK TALLY
S3
S4
S5
S7
S8
ON
OFF
S6(1/2)
PRESET
REDEN
S6(2/2)
DATE TIME
VTR SELECT
S9
SI1
SO1
SCK1
CS IN
RESET
POWER DOWN
READY
SIO
SOO
SCKO
CS
TIME CODE CONTROL & LCD CONTROL CPU
MEMORY 1024 BYTE
ROM 32 KBYTE
INST CYCLE 0.4μ SEC
F = 4.19MHz
UPD78064GF-3BA
1/2VD IN
BAT1 IN
BAT2 IN
REF IN
LCD DRIVE
TC CS
SIO
SOO
SC14
READY OUT
POWER ON
DI IN
DO OUT
CK OUT
CS OUT
AU1
AU2
SUPER LIGHT ON
SS-57,301-27
SS-57,301-30
SS-57,301-29
SS-57,301-28
SS-57,301-26
SCS(TC)
SD(SY/TC)
SD(TC/SY)
SCK(TC)
L:TC READY
TC CHIP SELECT
SIO IN
SOO OUT
SCK IN
TC READY OUT
POWER
H:SW OFF +12V
DRIVER
IC3
STATIC RAM
16 BITX64 WORD (1024 BIT)
5V
WARNING LAMP
SS-57,301-25
IC911,Q911-Q917
DC-DC CONV
REG +5V
LI +3V
POWER DOWN
POWER DOWN DETECTOR
RESET (L:RESET OUT)
LI LEVEL IN
TP302 IN AUDIO BLOCK(2/2)
TP402 IN AUDIO BLOCK(2/2)
Q550 ON TC-86 IN AUDIO BLOCK(1/2)
IC711 ON TC-86 IN AUDIO BLOCK(1/2)
AU CH1 IN
AU CH2 IN
DOLBY ON/OFF
MIC 60 DB ON/OFF
ANTON BAUER
AUTOMATIC SIGNAL
Q2
IC10
READY IN
SOO
SIO
SCKO
CS OUT
RESET IN
POWER DOWN
TIME CODE CONTROL CPU
512 BYTE
16K BYTE
0.92 CYCLE
UPD75516
1/2VD
PB(TEST)
TEST ON/OFF
PB/EE
(P60-P63,P70-P73)
DATA
(D0-D7)
(P50-P53,P21)
ADDRESS
DA0-DA4)
IC801
CXD8384Q
COMPOSITE SYNC IN
LTC OUT
TC IN
UP/DOWN IN
SI
FLD1
PON
FRMI
FRMO
LSHO
VCEI
TIME CODE IC
REC START/STOP
IC803
IC807
VCO
PHASE COMP
TP805
IC806
CL801
CTL UP/DOWN
IC802
CL802
PB CTL
TC-86/86A BOARD(3/3)
BUFF
CAM SYNC(X)
IC805
AMP
TC GENERATOR(X)
CL804
REC TC
IC806
TC EXT. (X)
CL805
PB TC
MB-506,11-4
MB-506
CN-935
CN7
TC OUT
SS-57,301-23
CN6
TC IN
SS-57,301-24
SS-57,302-8
SS-57,302-5
①
②
③
CH-1 MIC ATT
CH-2 MIC ATT
CAM MIC ATT
H;VR RESET
LIM LEVEL(H;NTSC L;PAL)
L;LIMITTER ON
TC-86 BOARD(1/2) IN AUDIO BLOCK(1/2)
1/2 VD
MB-503
SS-57,302-7
BATTERY LEVEL IN
BATTERY(X)
DC FILETER
DC IN(12V)
SW +12V
POWER SWITCH
A/D REF IN(5V)
IC2
5V REG
5V IN
LCDDATA
4X32 DOTS
LCD MODULE
4X32 DOTS
25% DUTY
1/3 BIAS

TIME CODE BLOCK
TC-86/86A BOARD(3/3)

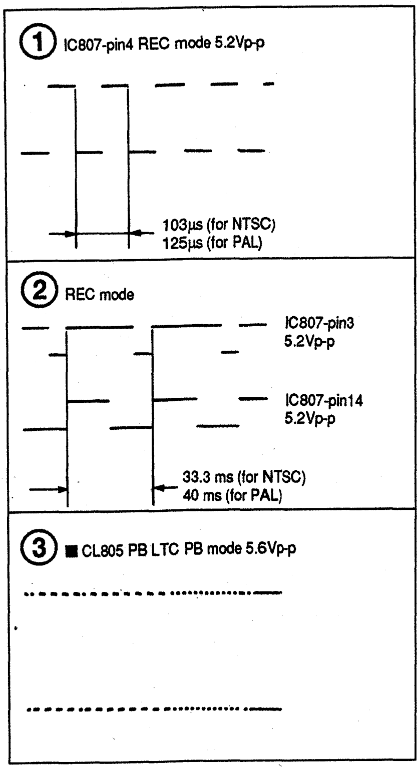
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

B-UVW100-TIMECODEBLOCK/M

TC GENERATOR AUDIO AMP

RECモード…75% COLOR BARSの記録状態。
PBモード…..アライメントテープCR5-1BのCOLOR BARS部分の再生状態。

REC mode...... Record the 75% color bars signal.
PB mode......... Play back the color bars signal portion of the alignment tape CR5-1B (for NTSC) / CR5-1BPS (for PAL).

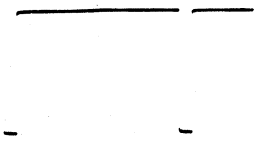

① IC807-pin4 REC mode 5.2Vp-p
103μs (for NTSC)
125μs (for PAL)
② REC mode
IC807-pin3
5.2Vp-p
IC807-pin14
5.2Vp-p
33.3 ms (for NTSC)
40 ms (for PAL)
③ ■ CL805 PB LTC PB mode 5.6Vp-p

SERVO & SYSTEM CONTROL BLOCK

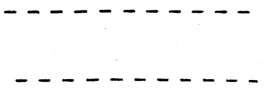
RECモード…75% COLOR BARSの記録状態。
PBモード…..アライメントテープCR5-1BのCOLOR BARS部分の再生状態。

REC mode...... Record the 75% color bars signal.
PB mode......... Play back the color bars signal portion of the alignment tape CR5-1B (for NTSC) / CR5-1BPS (for PAL).

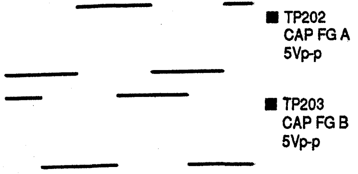
① ■ TP403 COMP SYNC 4.5Vp-p REC mode



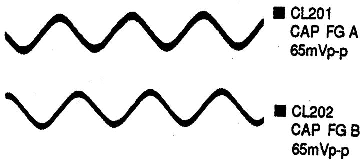
② ■ CL206 S REEL FG 5.3Vp-p ■ CL207 T REEL FG 5.3Vp-p FF/REW mode



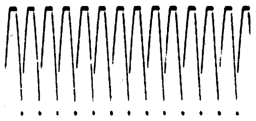
③ REC mode



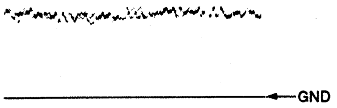
④ REC mode



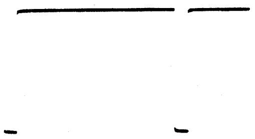
⑤ ■ TP201 CAP STOP SERVO ERROR REC mode



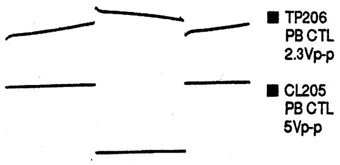
⑥ ■ CL705 CAP DRIVE 3.8Vdc REC mode



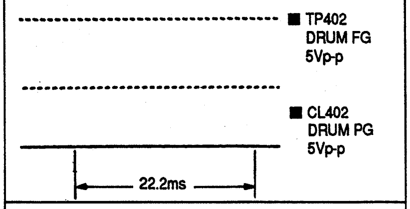
⑦ IC201-pin66 REF SYNC 4.5Vp-p REC mode



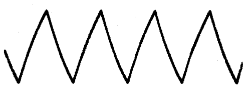
⑧ PB mode



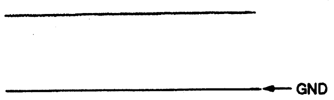
⑨ REC mode



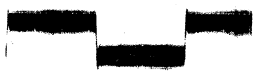
⑩ ■ CL204 PWM SAW 1.5Vp-p



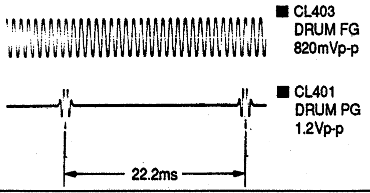
⑪ ■ CL412 DRUM DRIVE 5.4 Vdc REC mode



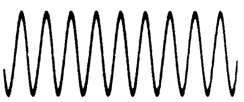
⑫ ■ TP204 REC CTL 40mVp-p REC mode



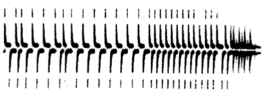
⑬ REC mode



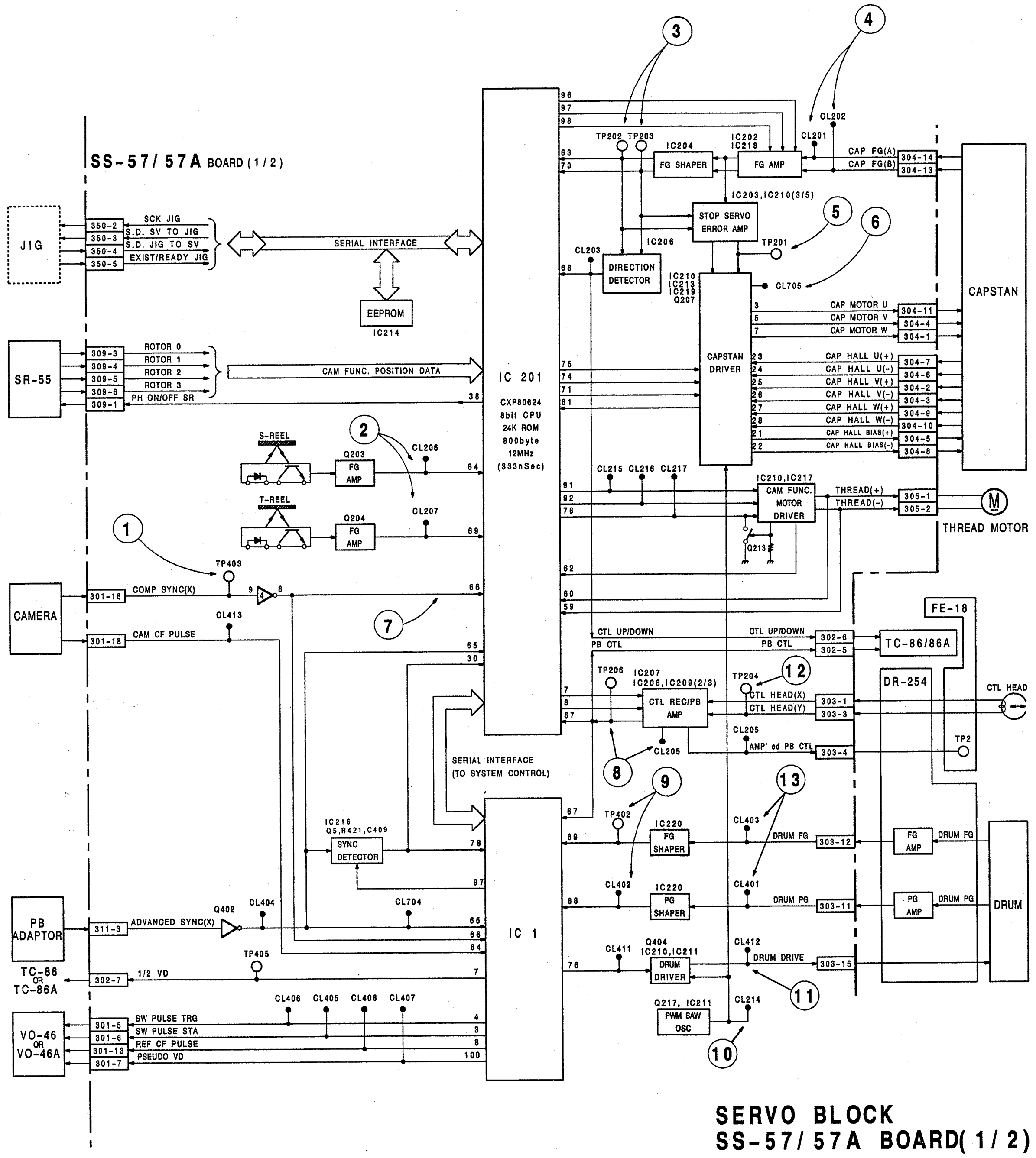
⑭ ■ CL5 170mVp-p REW mode
CL6 170mVp-p PB/FF/REC mode



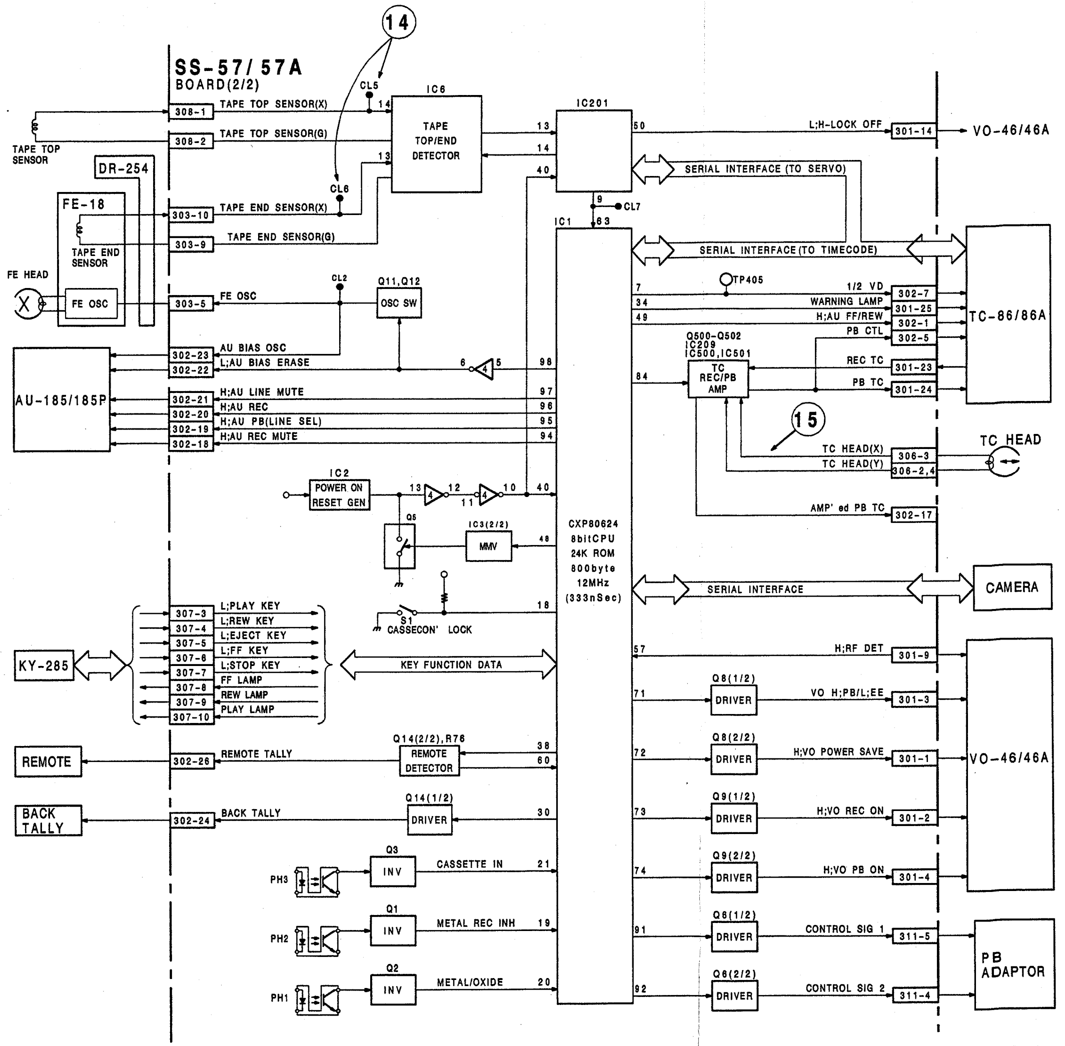
⑮ CN306-pin3 REC LTC 1.5Vp-p REC mode



SERVO & SYSTEM CONTROL


SS-57/57A BOARD(1/2)
JIG
SCK JIG
S.D. SV TO JIG
S.D. JIG TO SV
EXIST/READY JIG
SERIAL INTERFACE
EEPROM
IC214
SR-55
ROTOR 0
ROTOR 1
ROTOR 2
ROTOR 3
PH ON/OFF SR
CAM FUNC. POSITION DATA
S-REEL
T-REEL
Q203
Q204
FG AMP
CL206
CL207
TP403
CAMERA
COMP SYNC(X)
CAM CF PULSE
CL413
IC 201
CXP80624
8bit CPU
24K ROM
800byte
12MHz
(333nSec)
TP202 TP203
IC204
FG SHAPER
IC202
IC218
FG AMP
CL201
CL202
CAP FG(A)
CAP FG(B)
IC203,IC210(3/5)
STOP SERVO ERROR AMP
IC206
CL203
DIRECTION DETECTOR
TP201
CL705
IC210
IC213
IC219
Q207
CAPSTAN DRIVER
CAP MOTOR U
CAP MOTOR V
CAP MOTOR W
CAP HALL U(+)
CAP HALL U(-)
CAP HALL V(+)
CAP HALL V(-)
CAP HALL W(+)
CAP HALL W(-)
CAP HALL BIAS(+)
CAP HALL BIAS(-)
CAPSTAN
CL215 CL216 CL217
IC210,IC217
CAM FUNC. MOTOR DRIVER
Q213
THREAD(+)
THREAD(-)
M
THREAD MOTOR
CTL UP/DOWN
PB CTL
TC-86/86A
FE-18
DR-254
TP206
IC207
IC208,IC209(2/3)
CTL REC/PB AMP
TP204
CTL HEAD(X)
CTL HEAD(Y)
CL205
AMP' ed PB CTL
CTL HEAD
TP2
SERIAL INTERFACE
(TO SYSTEM CONTROL)
IC216
Q5,R421,C409
SYNC DETECTOR
TP402
IC220
FG SHAPER
CL402
IC220
PG SHAPER
CL403
DRUM FG
CL401
DRUM PG
FG AMP
PG AMP
DRUM
PB ADAPTOR
ADVANCED SYNC(X)
Q402
CL404
CL704
IC 1
TP405
TC-86 OR TC-86A
1/2 VD
CL411
Q404
IC210,IC211
DRUM DRIVER
CL412
DRUM DRIVE
Q217, IC211
PWM SAW OSC
CL214
CL406 CL405 CL408 CL407
VO-46 OR VO-46A
SW PULSE TRG
SW PULSE STA
REF CF PULSE
PSEUDO VD
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬

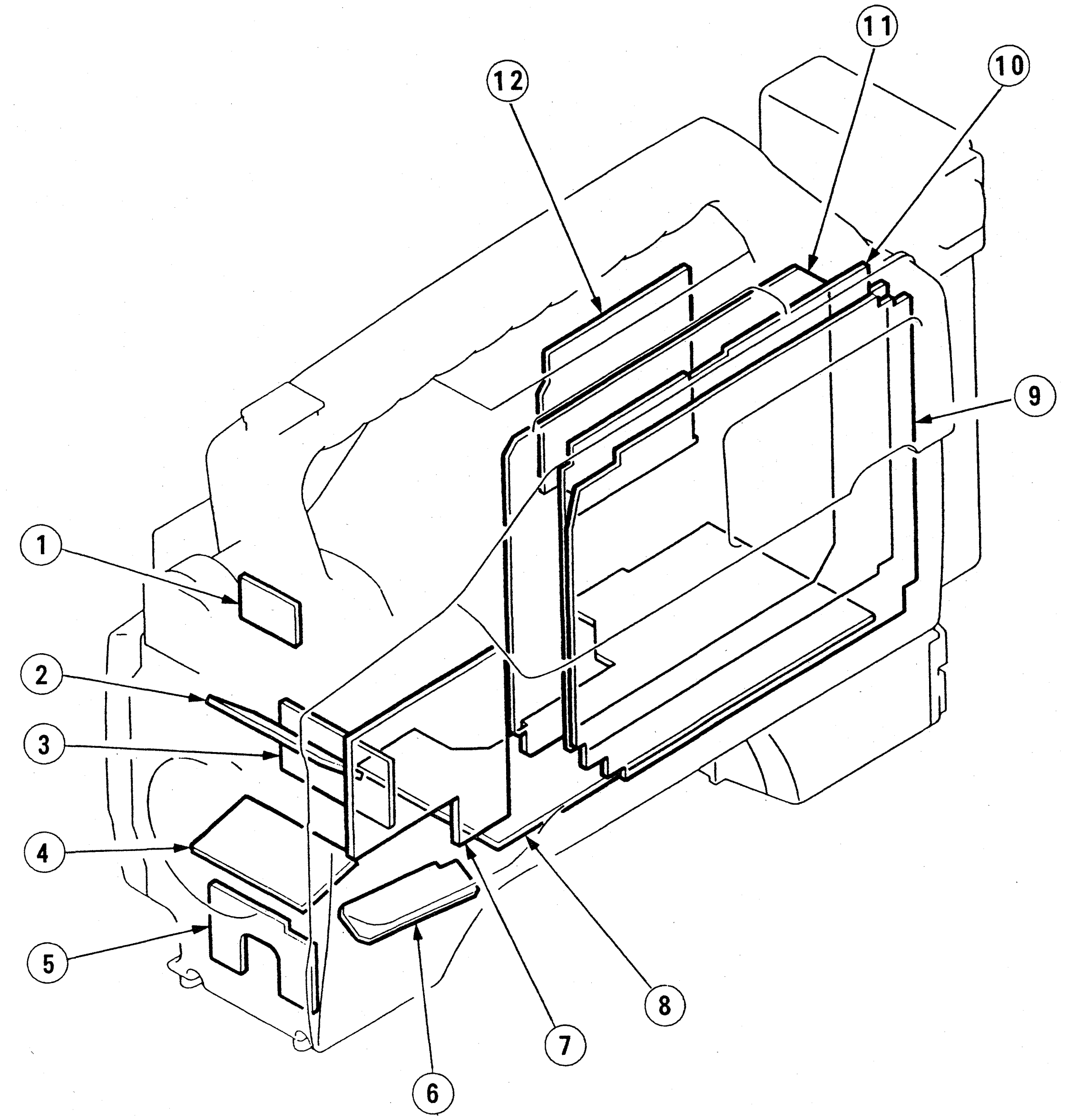
SERVO BLOCK
SS-57/57A BOARD(1/2)
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)
B-1UVW100-SS57-SERVOBLOCK/M


SS-57/57A BOARD(2/2)
⑭
⑮
TAPE TOP SENSOR(X)
TAPE TOP SENSOR(G)
TAPE TOP SENSOR
CL5
CL6
IC6
TAPE TOP/END DETECTOR
DR-254
FE-18
TAPE END SENSOR
TAPE END SENSOR(X)
TAPE END SENSOR(G)
FE HEAD
FE OSC
CL2
Q11,Q12
OSC SW
AU-185/185P
AU BIAS OSC
L;AU BIAS ERASE
H;AU LINE MUTE
H;AU REC
H;AU PB(LINE SEL)
H;AU REC MUTE
IC2
POWER ON RESET GEN
Q5
IC3(2/2)
MMV
S1
CASSECON' LOCK
KY-285
L;PLAY KEY
L;REW KEY
L;EJECT KEY
L;FF KEY
L;STOP KEY
FF LAMP
REW LAMP
PLAY LAMP
KEY FUNCTION DATA
REMOTE
REMOTE TALLY
Q14(2/2),R76
REMOTE DETECTOR
BACK TALLY
Q14(1/2)
DRIVER
PH3
PH2
PH1
Q3
Q1
Q2
INV
CASSETTE IN
METAL REC INH
METAL/OXIDE
IC201
IC1
CL7
CXP80624
8bitCPU
24K ROM
800byte
12MHz
(333nSec)
L;H-LOCK OFF
VO-46/46A
SERIAL INTERFACE (TO SERVO)
SERIAL INTERFACE (TO TIMECODE)
TC-86/86A
TP405
1/2 VD
WARNING LAMP
H;AU FF/REW
PB CTL
Q500-Q502
IC209
IC500,IC501
TC REC/PB AMP
REC TC
PB TC
TC HEAD(X)
TC HEAD(Y)
TC HEAD
AMP' ed PB TC
SERIAL INTERFACE
CAMERA
H;RF DET
Q8(1/2)
Q8(2/2)
Q9(1/2)
Q9(2/2)
Q6(1/2)
Q6(2/2)
VO H;PB/L;EE
H;VO POWER SAVE
H;VO REC ON
H;VO PB ON
CONTROL SIG 1
CONTROL SIG 2
PB ADAPTOR

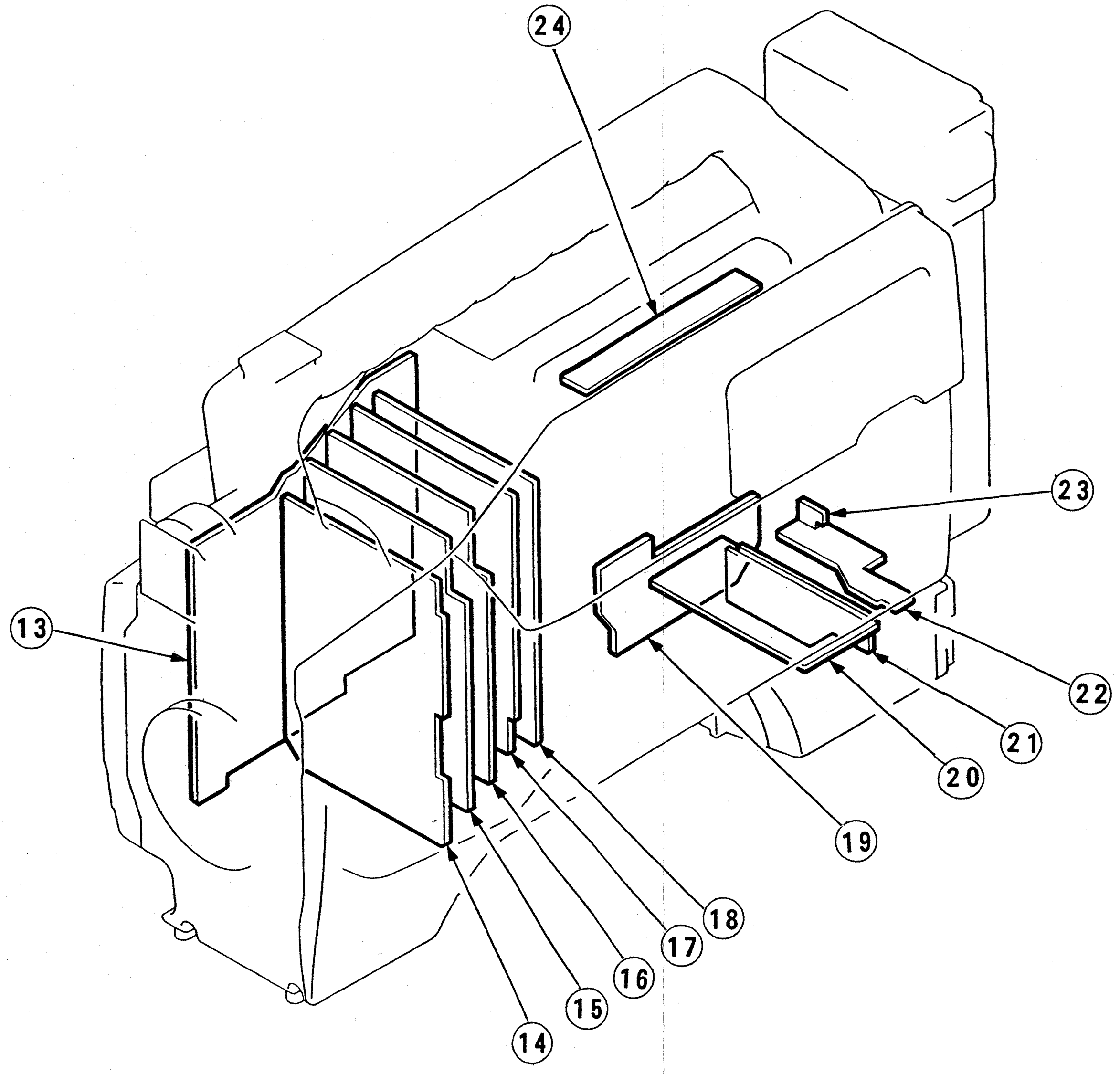
SYSTEM CONTROL BLOCK
SS-57/57A BOARD(2/2)
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)
B-1UVW100-SS57-SYSTEMBLOCK/M

SECTION 11
SCHEMATIC DIAGRAMS AND BOARD LAYOUT

BOARD LAYOUT



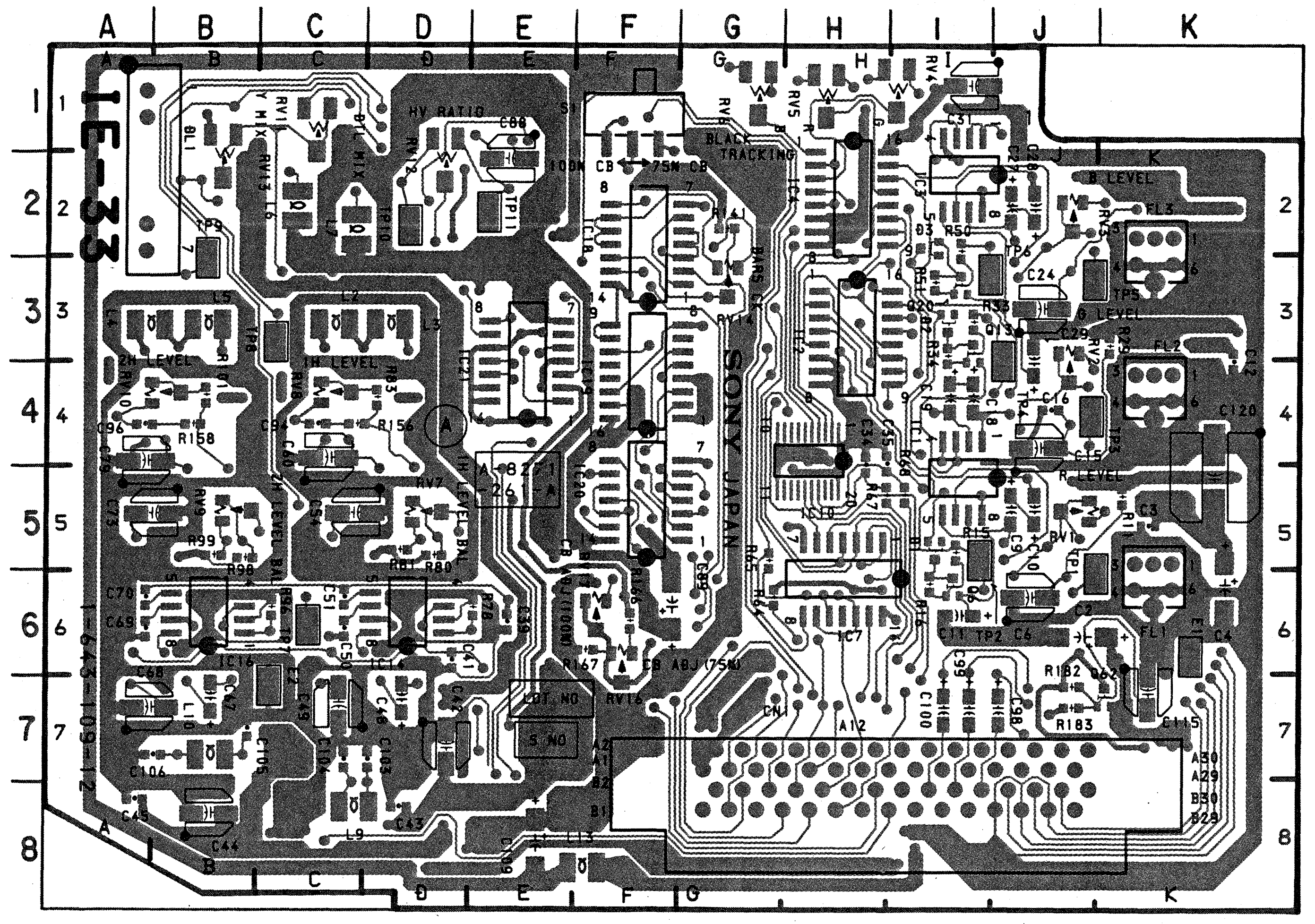
- ① CN-992 Board
- ② PA-137 (B) Board
- ③ PA-137 (G) Board
- ④ PA-137 (R) Board
- ⑤ SW-656 Board
- ⑥ SW-655 Board
- ⑦ SW-654 Board
- ⑧ MB-506 Board
- ⑨ TC-86/86A Board
- ⑩ VO-46/46A Board
- ⑪ SS-57/57A Board
- ⑫ AU-185/185P Board



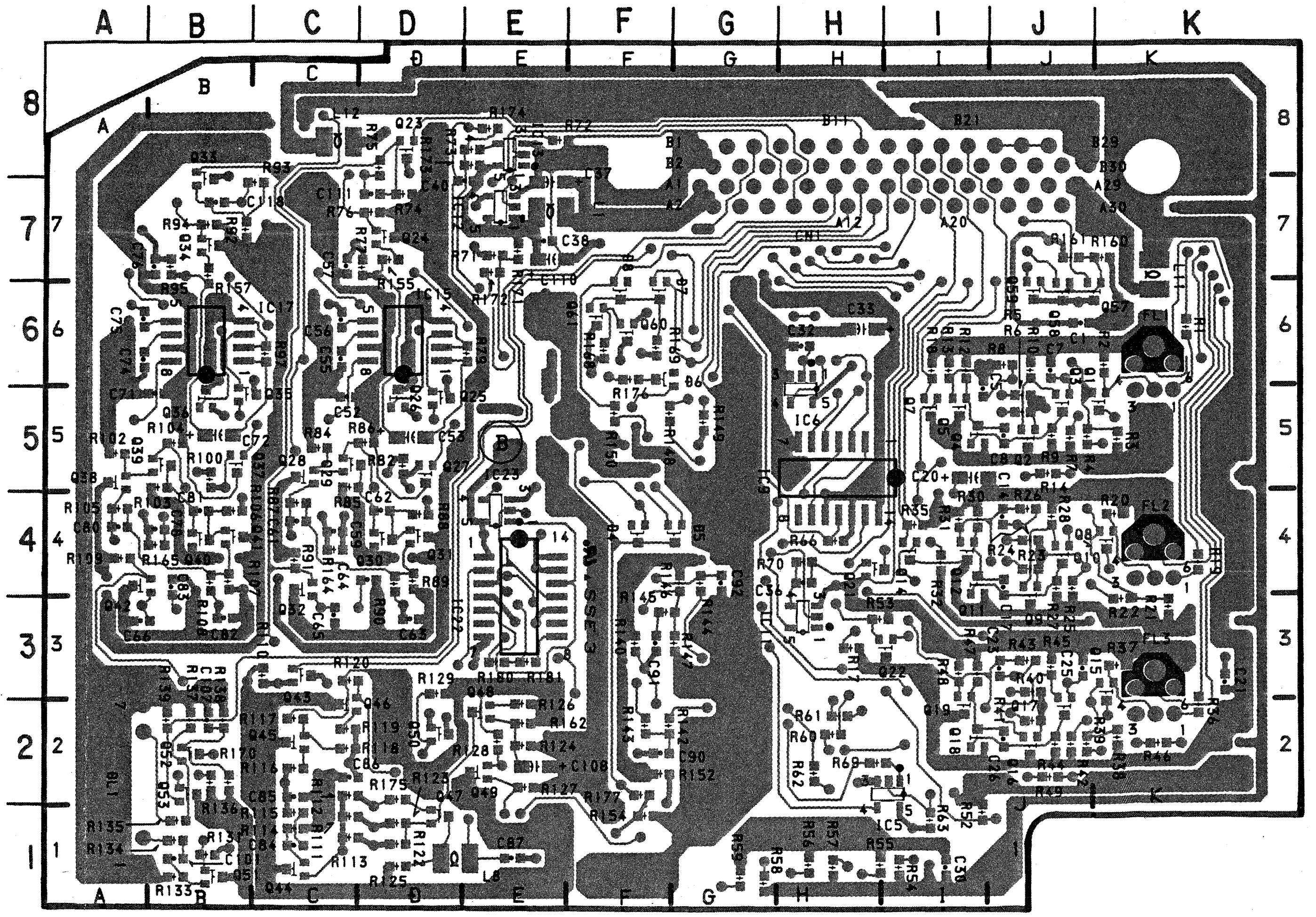
- ⑬ MB-530/530P Board
- ⑭ PR-208 Board
- ⑮ IE-33U/33UP Board
- ⑯ ES-7 (J)/ES-7 (UC)/ES-7 (P) Board
- ⑰ AT-85 Board
- ⑱ IF-454 Board
- ⑲ CN-935 Board
- ⑳ DC-62 Board
- ㉑ DC-63 Board
- ㉒ CN-936 Board
- ㉓ LED-214 Board
- ㉔ KY-285 Board

IE-33/33P BOARD

SERIAL No. 10001-11235 (UC)
30001-30490 (J)
40001-41350 (EK)


A
B
C
D
E
F
G
H
I
J
K
1
2
3
4
5
6
7
8
IE-33
HV RATIO
Y MIX
BL MIX
BLACK TRACKING
100N CB
75N CB
BARS
SONY JAPAN
B LEVEL
G LEVEL
R LEVEL
H LEVEL
1H LEVEL
LOT NO
S NO
CB ADJ (75N)
CN1
A12
A30
A29
B30
B29
1-643-109-12

IE-33/33P -A SIDE-
1-643-109-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


A
B
C
D
E
F
G
H
I
J
K
1
2
3
4
5
6
7
8
CN1
A12
A20
A29
A30
B1
B2
B11
B21
B29
B30

IE-33/33P -B SIDE-
1-643-109-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

IE-33/33P(1-643-109-12)

* ; B SIDE

CN1	H-7	IC2	H-3	*L1	F-7	*Q8	J-4	*Q29	C-5	*Q50	D-2	RV12	D-2
		IC3	I-2	L2	C-3	*Q9	J-3	*Q30	D-4	*Q51	B-1	RV13	C-2
DL1	A-2	IC4	H-2	L3	D-3	*Q10	J-4	*Q31	D-4	*Q52	B-2	RV14	G-3
		*IC5	I-1	L4	A-3	*Q11	I-3	*Q32	C-3	*Q53	B-2	RV16	F-7
D1	I-5	*IC6	H-5	L5	B-3	*Q12	I-4	*Q33	B-8	*Q57	K-6	RV17	F-6
D2	I-3	IC7	H-6	L6	C-2	Q13	J-3	*Q34	B-7	*Q58	J-6		
D3	I-2	*IC9	G-5	L7	C-2	*Q14	I-4	*Q35	C-5	*Q59	J-6	S1	E-1
*D4	F-4	IC10	G-4	*L8	E-1	*Q15	J-3	*Q36	B-5	*Q60	F-6		
*D5	G-4	*IC11	H-3	L9	C-8	*Q16	J-2	*Q37	C-5	*Q61	F-6	TP1	K-6
*D6	G-6	*IC12	D-7	L10	B-7	*Q17	J-2	*Q38	A-5			TP2	I-6
*D7	F-6	*IC13	E-8	*L11	K-7	*Q18	I-2	*Q39	A-5	RV1	K-5	TP3	K-4
*D8	F-7	IC14	D-6	*L12	C-8	*Q19	I-2	*Q40	B-4	RV2	J-4	TP4	J-4
		*IC15	D-6	L13	F-8	Q20	I-3	*Q41	B-4	RV3	K-2	TP5	J-3
E1	K-6	IC16	B-6			*Q21	H-4	*Q42	A-3	RV4	I-1	TP6	J-2
E2	C-7	*IC17	C-6	*Q1	J-6	*Q22	I-3	*Q43	C-3	RV5	H-1	TP7	C-6
		IC18	F-2	*Q2	J-5	*Q23	D-8	*Q44	C-1	RV6	G-1	TP8	C-3
FL1	K-6	IC19	F-4	*Q3	J-6	*Q24	D-7	*Q45	C-2	RV7	D-5	TP9	B-2
FL2	K-4	IC20	F-5	*Q4	I-5	*Q25	E-5	*Q46	D-2	RV8	C-4	TP10	D-2
FL3	K-3	IC21	E-4	*Q5	I-5	*Q26	D-5	*Q47	D-1	RV9	B-5	TP11	E-2
		*IC22	D-3	Q6	I-6	*Q27	D-5	*Q48	E-3	RV10	A-4		
IC1	I-4	*IC23	E-5	*Q7	I-5	*Q28	C-5	*Q49	E-2	RV11	C-1		

* ; B SIDE

IE-33/33P(1-643-109-12)

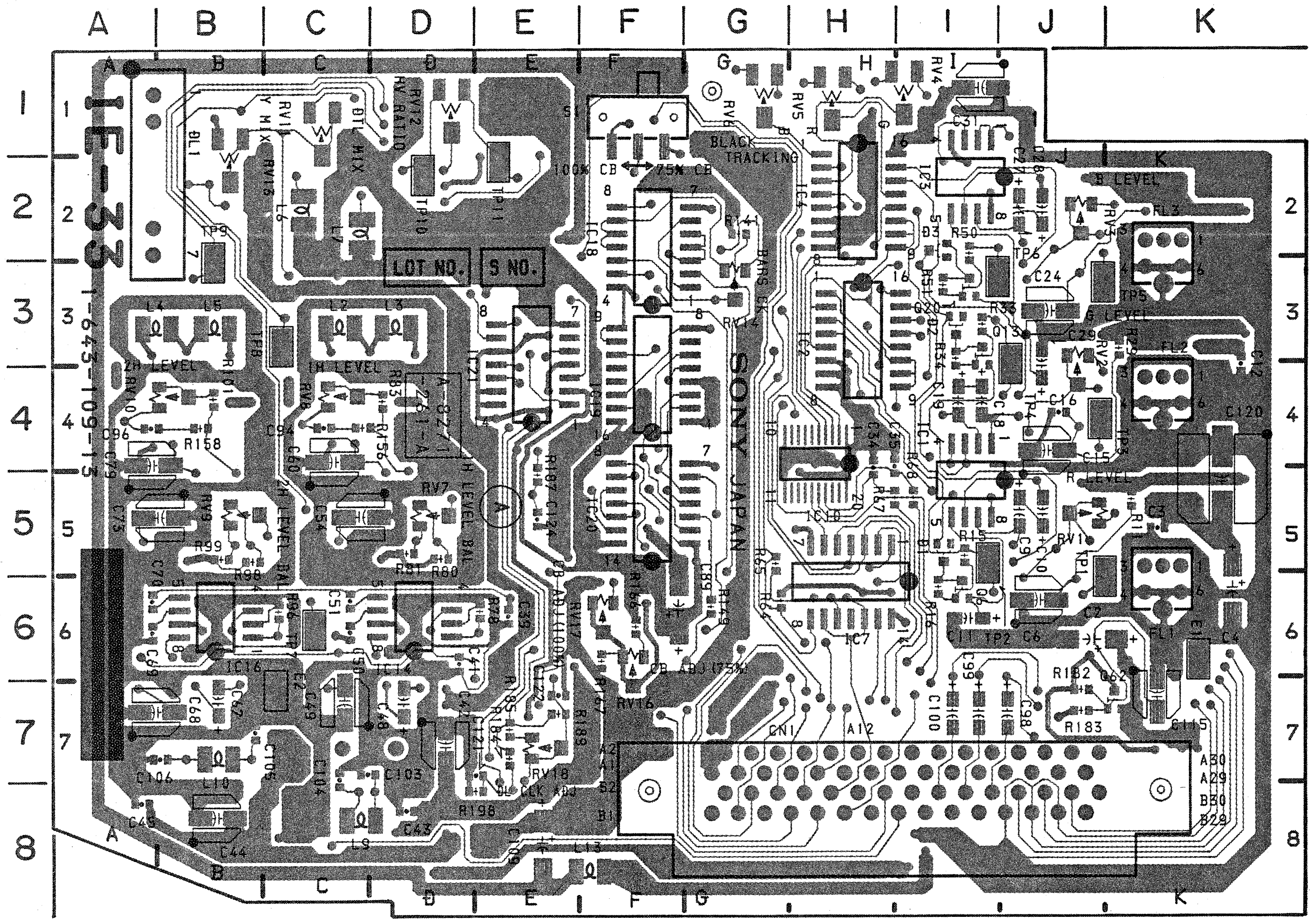
* ; B SIDE

CN1	H-7	IC2	H-3	*L1	F-7	*Q8	J-4	*Q29	C-5	*Q50	D-2	RV12	D-2
		IC3	I-2	L2	C-3	*Q9	J-3	*Q30	D-4	*Q51	B-1	RV13	C-2
DL1	A-2	IC4	H-2	L3	D-3	*Q10	J-4	*Q31	D-4	*Q52	B-2	RV14	G-3
		*IC5	I-1	L4	A-3	*Q11	I-3	*Q32	C-3	*Q53	B-2	RV16	F-7
D1	I-5	*IC6	H-5	L5	B-3	*Q12	I-4	*Q33	B-8	*Q57	K-6	RV17	F-6
D2	I-3	IC7	H-6	L6	C-2	Q13	J-3	*Q34	B-7	*Q58	J-6		
D3	I-2	*IC9	G-5	L7	C-2	*Q14	I-4	*Q35	C-5	*Q59	J-6	S1	E-1
*D4	F-4	IC10	G-4	*L8	E-1	*Q15	J-3	*Q36	B-5	*Q60	F-6		
*D5	G-4	*IC11	H-3	L9	C-8	*Q16	J-2	*Q37	C-5	*Q61	F-6	TP1	K-6
*D6	G-6	*IC12	D-7	L10	B-7	*Q17	J-2	*Q38	A-5			TP2	I-6
*D7	F-6	*IC13	E-8	*L11	K-7	*Q18	I-2	*Q39	A-5	RV1	K-5	TP3	K-4
*D8	F-7	IC14	D-6	*L12	C-8	*Q19	I-2	*Q40	B-4	RV2	J-4	TP4	J-4
		*IC15	D-6	L13	F-8	Q20	I-3	*Q41	B-4	RV3	K-2	TP5	J-3
E1	K-6	IC16	B-6			*Q21	H-4	*Q42	A-3	RV4	I-1	TP6	J-2
E2	C-7	*IC17	C-6	*Q1	J-6	*Q22	I-3	*Q43	C-3	RV5	H-1	TP7	C-6
		IC18	F-2	*Q2	J-5	*Q23	D-8	*Q44	C-1	RV6	G-1	TP8	C-3
FL1	K-6	IC19	F-4	*Q3	J-6	*Q24	D-7	*Q45	C-2	RV7	D-5	TP9	B-2
FL2	K-4	IC20	F-5	*Q4	I-5	*Q25	E-5	*Q46	D-2	RV8	C-4	TP10	D-2
FL3	K-3	IC21	E-4	*Q5	I-5	*Q26	D-5	*Q47	D-1	RV9	B-5	TP11	E-2
		*IC22	D-3	Q6	I-6	*Q27	D-5	*Q48	E-3	RV10	A-4		
IC1	I-4	*IC23	E-5	*Q7	I-5	*Q28	C-5	*Q49	E-2	RV11	C-1		

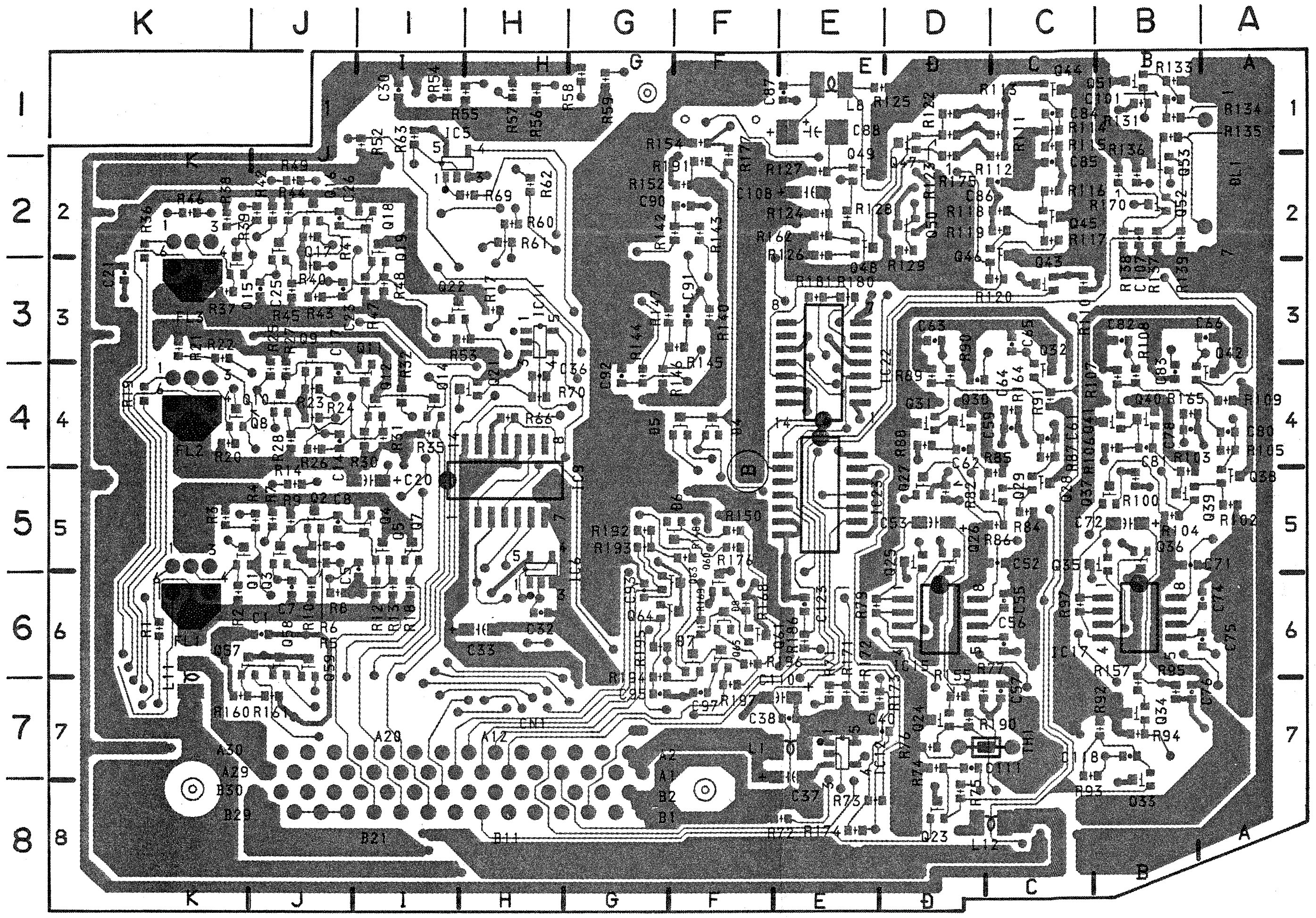
* ; B SIDE
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

IE-33/33P BOARD

SERIAL No. 11236 and higher (UC)
30491 and higher (J)
41351 and higher (EK)



IE-33/33P -A SIDE-
1-643-109-13
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)



IE-33/33P -B SIDE-
1-643-109-13
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

IE-33/33P(1-643-109-13)

*; B SIDE

CN1	H-7	IC2	H-3	*L1	F-7	*Q8	J-4	*Q29	C-5	*Q50	D-2	RV12	D-2
		IC3	I-2	L2	C-3	*Q9	J-3	*Q30	D-4	*Q51	B-1	RV13	C-2
DL1	A-2	IC4	H-2	L3	D-3	*Q10	J-4	*Q31	D-4	*Q52	B-2	RV14	G-3
		*IC5	I-1	L4	A-3	*Q11	I-3	*Q32	C-3	*Q53	B-2	RV16	F-7
D1	I-5	*IC6	H-5	L5	B-3	*Q12	I-4	*Q33	B-8	*Q57	K-6	RV17	F-6
D2	I-3	IC7	H-6	L6	C-2	Q13	J-3	*Q34	B-7	*Q58	J-6		
D3	I-2	*IC9	G-5	L7	C-2	*Q14	I-4	*Q35	C-5	*Q59	J-6	S1	E-1
*D4	F-4	IC10	G-4	*L8	E-1	*Q15	J-3	*Q36	B-5	*Q60	F-6		
*D5	G-4	*IC11	H-3	L9	C-8	*Q16	J-2	*Q37	C-5	*Q61	F-6	TP1	K-6
*D6	G-6	*IC12	D-7	L10	B-7	*Q17	J-2	*Q38	A-5			TP2	I-6
*D7	F-6	*IC13	E-8	*L11	K-7	*Q18	I-2	*Q39	A-5	RV1	K-5	TP3	K-4
*D8	F-7	IC14	D-6	*L12	C-8	*Q19	I-2	*Q40	B-4	RV2	J-4	TP4	J-4
		*IC15	D-6	L13	F-8	Q20	I-3	*Q41	B-4	RV3	K-2	TP5	J-3
E1	K-6	IC16	B-6			*Q21	H-4	*Q42	A-3	RV4	I-1	TP6	J-2
E2	C-7	*IC17	C-6	*Q1	J-6	*Q22	I-3	*Q43	C-3	RV5	H-1	TP7	C-6
		IC18	F-2	*Q2	J-5	*Q23	D-8	*Q44	C-1	RV6	G-1	TP8	C-3
FL1	K-6	IC19	F-4	*Q3	J-6	*Q24	D-7	*Q45	C-2	RV7	D-5	TP9	B-2
FL2	K-4	IC20	F-5	*Q4	I-5	*Q25	E-5	*Q46	D-2	RV8	C-4	TP10	D-2
FL3	K-3	IC21	E-4	*Q5	I-5	*Q26	D-5	*Q47	D-1	RV9	B-5	TP11	E-2
		*IC22	D-3	Q6	I-6	*Q27	D-5	*Q48	E-3	RV10	A-4		
IC1	I-4	*IC23	E-5	*Q7	I-5	*Q28	C-5	*Q49	E-2	RV11	C-1		

*; B SIDE

UVW-100 (J)
UVW-100 (UC)
UVW-100P (EK)

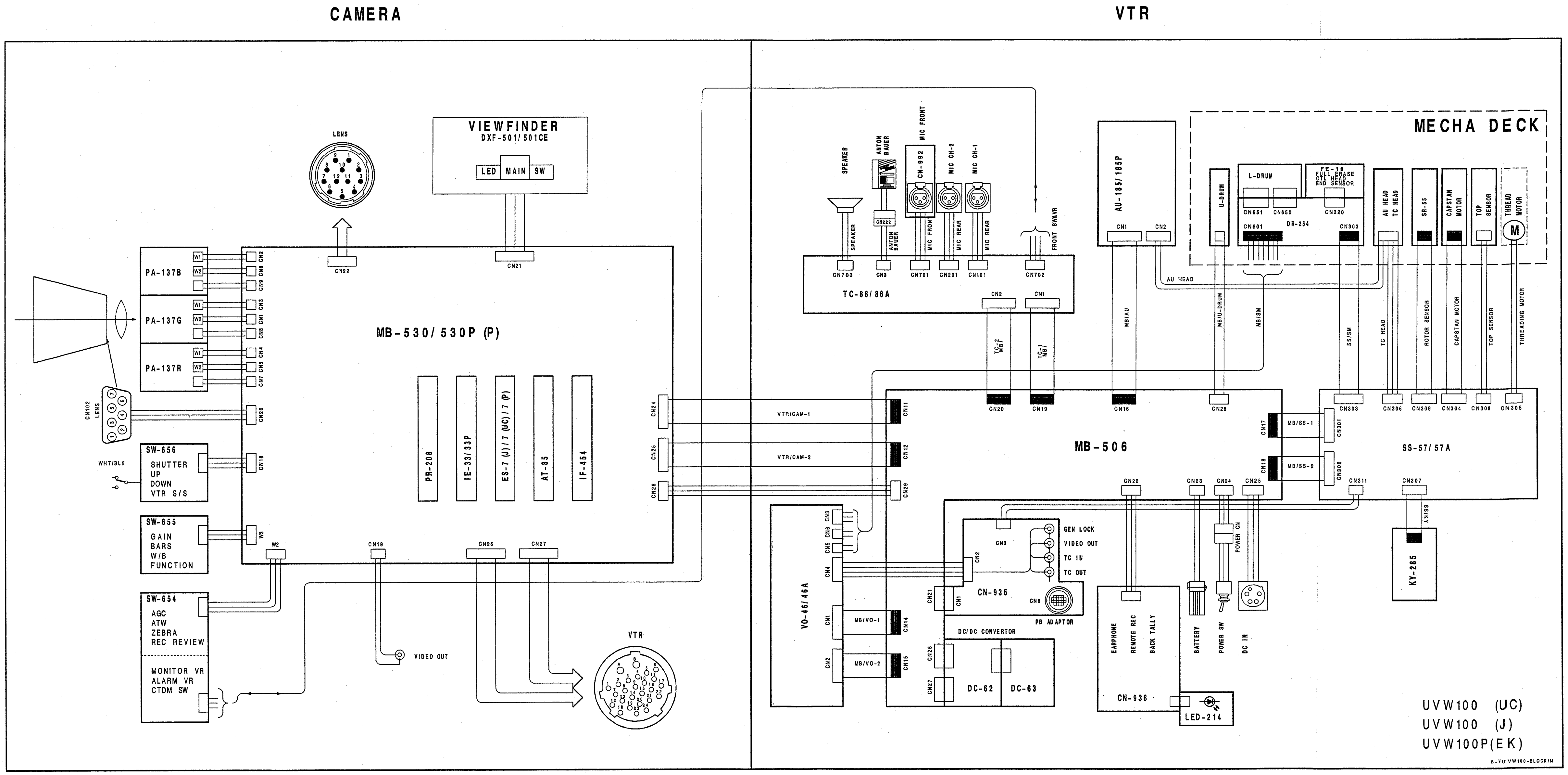
IE-33/33P(1-643-109-13)

*; B SIDE

CN1	H-7	IC2	H-3	*L1	F-7	*Q8	J-4	*Q29	C-5	*Q50	D-2	RV12	D-2
		IC3	I-2	L2	C-3	*Q9	J-3	*Q30	D-4	*Q51	B-1	RV13	C-2
DL1	A-2	IC4	H-2	L3	D-3	*Q10	J-4	*Q31	D-4	*Q52	B-2	RV14	G-3
		*IC5	I-1	L4	A-3	*Q11	I-3	*Q32	C-3	*Q53	B-2	RV16	F-7
D1	I-5	*IC6	H-5	L5	B-3	*Q12	I-4	*Q33	B-8	*Q57	K-6	RV17	F-6
D2	I-3	IC7	H-6	L6	C-2	Q13	J-3	*Q34	B-7	*Q58	J-6		
D3	I-2	*IC9	G-5	L7	C-2	*Q14	I-4	*Q35	C-5	*Q59	J-6	S1	E-1
*D4	F-4	IC10	G-4	*L8	E-1	*Q15	J-3	*Q36	B-5	*Q60	F-6		
*D5	G-4	*IC11	H-3	L9	C-8	*Q16	J-2	*Q37	C-5	*Q61	F-6	TP1	K-6
*D6	G-6	*IC12	D-7	L10	B-7	*Q17	J-2	*Q38	A-5			TP2	I-6
*D7	F-6	*IC13	E-8	*L11	K-7	*Q18	I-2	*Q39	A-5	RV1	K-5	TP3	K-4
*D8	F-7	IC14	D-6	*L12	C-8	*Q19	I-2	*Q40	B-4	RV2	J-4	TP4	J-4
		*IC15	D-6	L13	F-8	Q20	I-3	*Q41	B-4	RV3	K-2	TP5	J-3
E1	K-6	IC16	B-6			*Q21	H-4	*Q42	A-3	RV4	I-1	TP6	J-2
E2	C-7	*IC17	C-6	*Q1	J-6	*Q22	I-3	*Q43	C-3	RV5	H-1	TP7	C-6
		IC18	F-2	*Q2	J-5	*Q23	D-8	*Q44	C-1	RV6	G-1	TP8	C-3
FL1	K-6	IC19	F-4	*Q3	J-6	*Q24	D-7	*Q45	C-2	RV7	D-5	TP9	B-2
FL2	K-4	IC20	F-5	*Q4	I-5	*Q25	E-5	*Q46	D-2	RV8	C-4	TP10	D-2
FL3	K-3	IC21	E-4	*Q5	I-5	*Q26	D-5	*Q47	D-1	RV9	B-5	TP11	E-2
		*IC22	D-3	Q6	I-6	*Q27	D-5	*Q48	E-3	RV10	A-4		
IC1	I-4	*IC23	E-5	*Q7	I-5	*Q28	C-5	*Q49	E-2	RV11	C-1		

*; B SIDE

CONFIGURATION


CAMERA
VTR
LENS
VIEWFINDER
DXF-501/501CE
LED
MAIN
SW
CN22
CN21
PA-137B
PA-137G
PA-137R
W1
W2
MB-530/530P (P)
PR-208
IE-33/33P
ES-7 (J)/7 (UC)/7 (P)
AT-85
IF-454
CN102
LENS
CN20
CN18
SW-656
SHUTTER
UP
DOWN
VTR S/S
WHT/BLK
SW-655
GAIN
BARS
W/B
FUNCTION
W3
W2
SW-654
AGC
ATW
ZEBRA
REC REVIEW
MONITOR VR
ALARM VR
CTDM SW
CN19
CN26
CN27
VIDEO OUT
CN24
CN25
CN28
VTR/CAM-1
VTR/CAM-2
SPEAKER
ANTON BAUER
CN-992
MIC FRONT
MIC CH-2
MIC CH-1
MIC REAR
FRONT SWAVR
CN703
CN3
CN701
CN201
CN101
CN702
CN222
TC-86/86A
CN2
CN1
AU-185/185P
CN1
CN2
AU HEAD
MECHA DECK
U-DRUM
L-DRUM
CN651
CN650
CN601
DR-254
FE-18
FULL ERASE
CTL HEAD
END SENSOR
CN320
CN303
AU HEAD
TC HEAD
SR-55
CAPSTAN MOTOR
TOP SENSOR
THREAD MOTOR
M
MB/AU
MB/U-DRUM
MB/SM
SS/SM
TC HEAD
ROTOR SENSOR
CAPSTAN MOTOR
TOP SENSOR
THREADING MOTOR
MB-506
CN11
CN12
CN29
CN20
CN19
CN16
CN28
CN17
CN18
MB/SS-1
MB/SS-2
CN301
CN302
SS-57/57A
CN303
CN306
CN309
CN304
CN308
CN305
CN311
CN307
SS/KY
KY-285
CN22
CN23
CN24
CN25
POWER CN
VO-46/46A
CN3
CN6
CN5
CN4
CN1
CN2
CN21
CN14
CN15
CN26
CN27
MB/VO-1
MB/VO-2
CN3
CN2
CN1
GEN LOCK
VIDEO OUT
TC IN
TC OUT
CN-935
CN8
PB ADAPTOR
DC/DC CONVERTOR
DC-62
DC-63
EARPHONE
REMOTE REC
BACK TALLY
CN-936
LED-214
BATTERY
POWER SW
DC IN
UVW100 (UC)
UVW100 (J)
UVW100P(EK)
S-VU VW100-BLOCK/M

VIDEO AMP
IMAGE ENHANCER
COLOR BAR GENERATOR

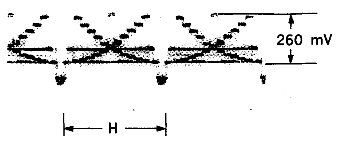
注意：

1. DC電圧はデジタル電圧計による値。
   No Mark ：CAM mode
   ( ) Mark：BARS mode
2. 波形写真，およびDC電圧は下記条件での測定。
   - グレースケールチャートを撮像し，波形モニターにて，ビデオ出力の白レベルが100IREになるようにレンズ絞りをセットする。
   - OUTPUT ：CAM
   - GAIN ：0dB
   - WHITE BAL：PRE
   - SHUTTER ：OFF

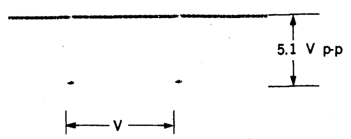
NOTE：

1. All voltage are DC. measured with a digital voltmeter.
   No Mark ：CAM mode
   ( ) Mark：BARS mode
2. All waveforms are taken and DC voltage is measured in condition below.
   - Shoot the gray scale chart. Adjust lens iris so that a white level is 100IRE for NTSC or 700 mV for PAL on the waveform monitor.
   - OUTPUT ：CAM
   - GAIN ：0dB
   - WHITE BAL：PRE
   - SHUTTER ：OFF

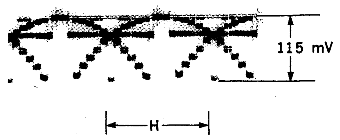
⑨ TP3 G PA VIDEO CAM side



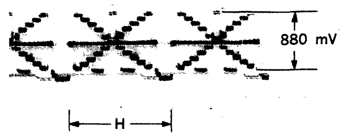
⑲ CN1-B7 VD CAM/BARS



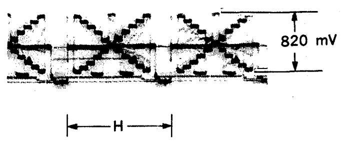
⑪ CN1-B20 G VA CAM side



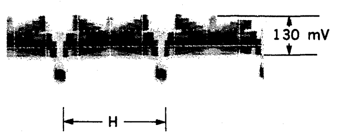
⑳ TP7 G PR VIDEO CAM side



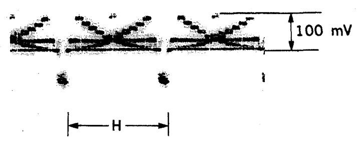
㉑ CN1-B15, TP8 G IE CAM side



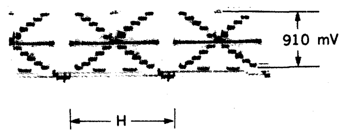
⑫ CN1-B24 B PA CAM side



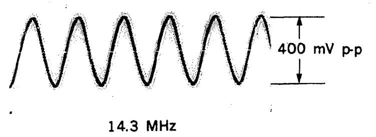
⑬ TP5 B PA VIDEO CAM side



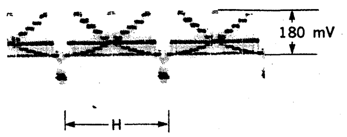
㉒ TP9 R PR VIDEO CAM side



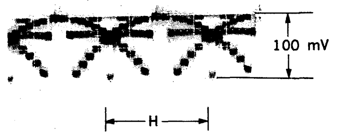
① CN1-A8 4FSC CAM side



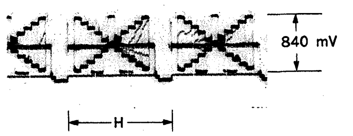
⑤ TP1 R PA VIDEO CAM side



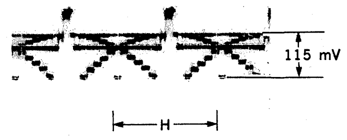
⑮ CN1-B18 B VA CAM side



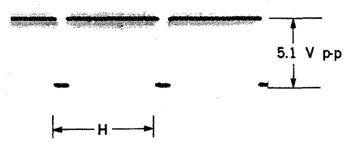
② CN1-B13 G PR VIDEO CAM side



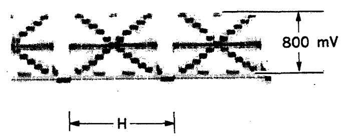
⑥ ⑩ ⑭ TP2/TP4/TP6 R/G/B VIDEO CAM side



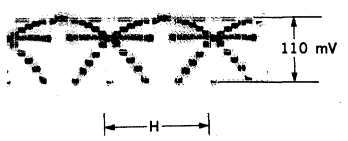
⑯ CN1-A9 CLP1 CAM side



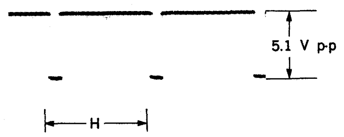
③ CN1-B14 R PR IC CAM side



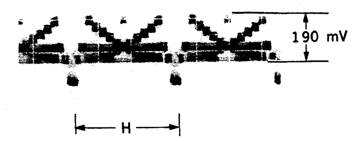
⑦ CN1-B22 R VA CAM side



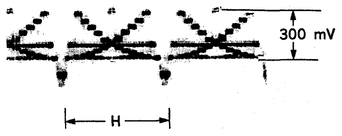
⑰ CN1-B8 HD CAM/BARS



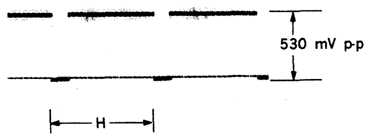
④ CN1-B28 R PA CAM side



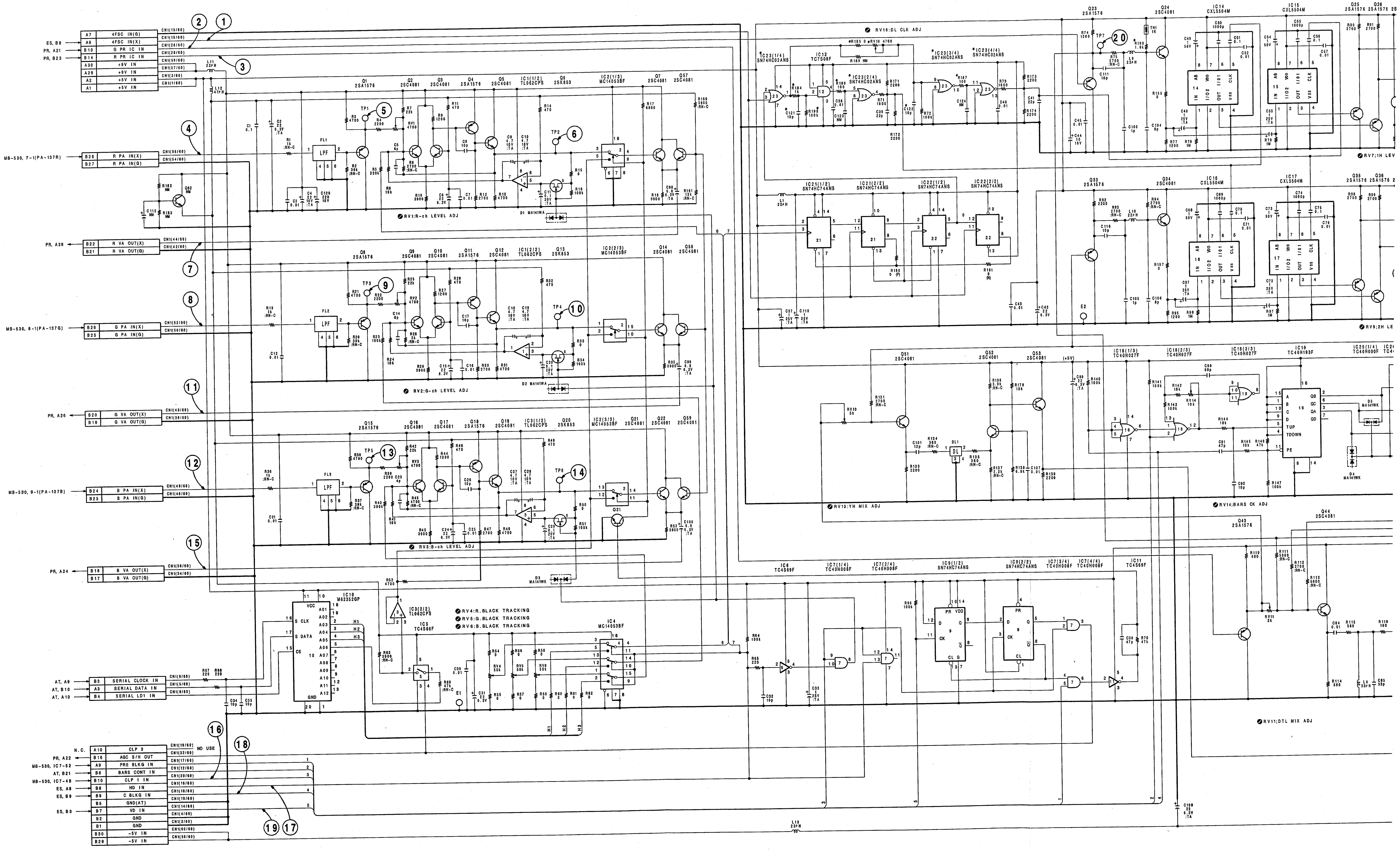
⑧ CN1-B26 G PA CAM side

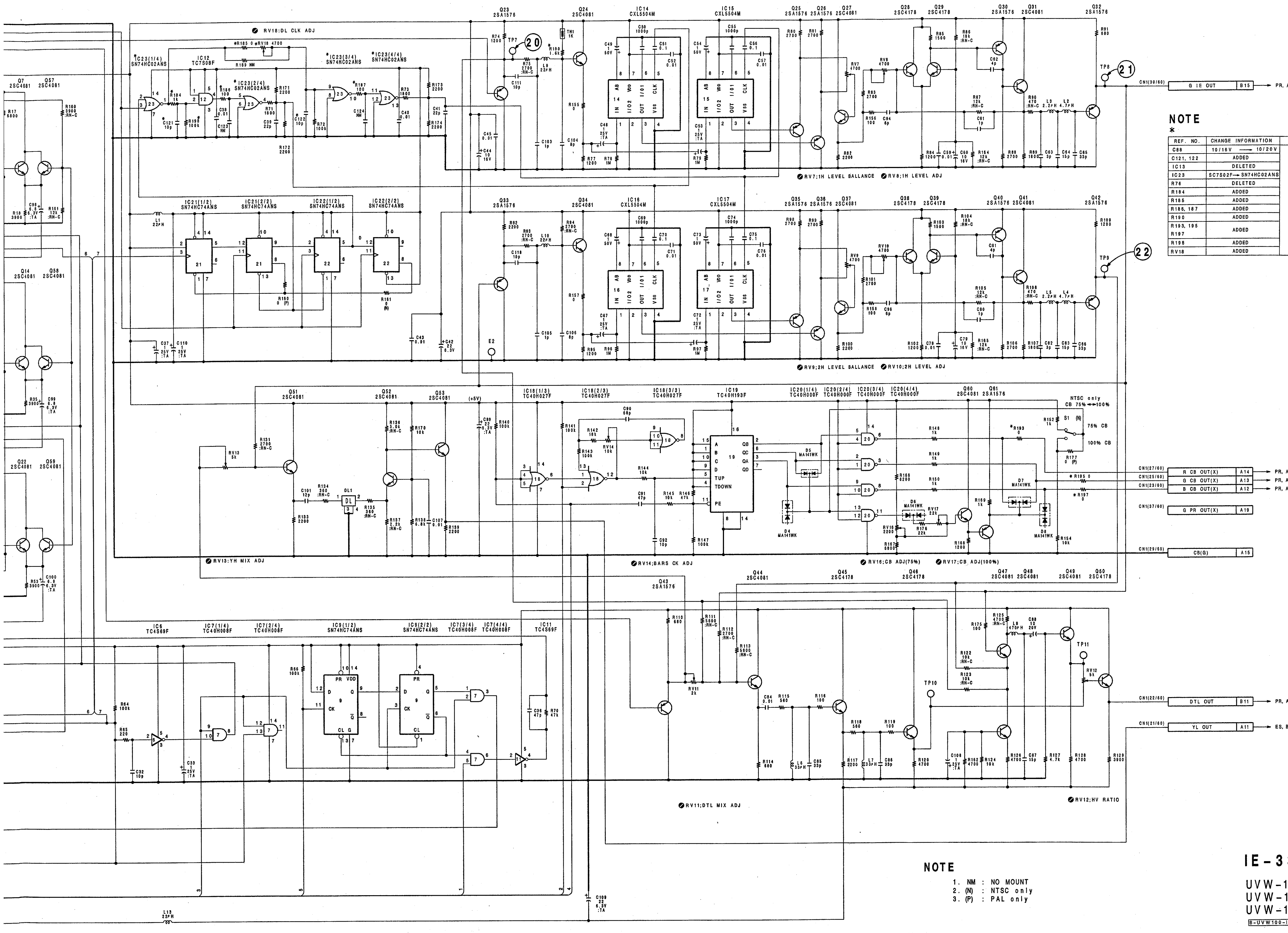


⑱ CN1-B9 BLKG CAM/BARS



VIDEO AMP
IMAGE ENHANCER
COLOR BAR GENERATOR


A7 4FSC IN(G)
A8 4FSC IN(X)
B13 G PR IC IN
B14 R PR IC IN
A30 +9V IN
A29 +9V IN
A2 +5V IN
A1 +5V IN
ES, B8
PR, A21
PR, B23
MB-530, 7-1(PA-137R)
B28 R PA IN(X)
B27 R PA IN(G)
PR, A28
B22 R VA OUT(X)
B21 R VA OUT(G)
MB-530, 8-1(PA-137G)
B26 G PA IN(X)
B25 G PA IN(G)
PR, A26
B20 G VA OUT(X)
B19 G VA OUT(G)
MB-530, 9-1(PA-137B)
B24 B PA IN(X)
B23 B PA IN(G)
PR, A24
B18 B VA OUT(X)
B17 B VA OUT(G)
AT, A9
AT, B10
AT, A10
B3 SERIAL CLOCK IN
A3 SERIAL DATA IN
B4 SERIAL LD1 IN
N.C.
PR, A22
MB-530, IC7-52
AT, B21
MB-530, IC7-48
ES, A8
ES, B9
ES, B3
A10 CLP 3
B16 AGC S/H OUT
A9 PRE BLKG IN
B6 BARS CONT IN
B10 CLP 1 IN
B8 HD IN
B9 C BLKG IN
B5 GND(AT)
B7 VD IN
B2 GND
B1 GND
B30 -5V IN
B29 -5V IN
NO USE
LPF
FL1
FL2
FL3
TP1
TP2
TP3
TP4
TP5
TP6
TP7
E1
E2
RV1:R-ch LEVEL ADJ
RV2:G-ch LEVEL ADJ
RV3:B-ch LEVEL ADJ
RV4:R.BLACK TRACKING
RV5:G.BLACK TRACKING
RV6:B.BLACK TRACKING
RV7:1H LEVEL
RV8:2H LEVEL
RV11:DTL MIX ADJ
RV13:YH MIX ADJ
RV14:BARS CK ADJ
RV18:DL CLK ADJ
IC1(1/2) TL062CPS
IC1(2/2) TL062CPS
IC2(1/3) MC14053BF
IC2(2/3) MC14053BF
IC2(3/3) MC14053BF
IC3(1/2) TL062CPS
IC3(2/2) TL062CPS
IC4 MC14053BF
IC5 TC4S66F
IC6 TC4S69F
IC7(1/4) TC40H008F
IC7(2/4) TC40H008F
IC7(3/4) TC40H008F
IC7(4/4) TC40H008F
IC9(1/2) SN74HC74ANS
IC9(2/2) SN74HC74ANS
IC10 M62352GP
IC11 TC4S69F
IC12 TC7S08F
IC14 CXL5504M
IC15 CXL5504M
IC16 CXL5504M
IC17 CXL5504M
IC18(1/3) TC40H027F
IC18(2/3) TC40H027F
IC18(3/3) TC40H027F
IC19 TC40H193F
IC20(1/4) TC40H000F
IC21(1/2) SN74HC74ANS
IC21(2/2) SN74HC74ANS
IC22(1/2) SN74HC74ANS
IC22(2/2) SN74HC74ANS
IC23(1/4) SN74HC02ANS
IC23(2/4) SN74HC02ANS
IC23(3/4) SN74HC02ANS
IC23(4/4) SN74HC02ANS
D1 MA141WA
D2 MA141WA
D3 MA141WK
D4 MA141WK
D5 MA141WK
DL1
L1 22μH
L11 22μH
L12 47μH
L13 22μH
Q1 2SA1576
Q2 2SC4081
Q3 2SC4081
Q4 2SA1576
Q5 2SC4081
Q6 2SK853
Q7 2SC4081
Q57 2SC4081
Q8 2SA1576
Q9 2SC4081
Q10 2SC4081
Q11 2SA1576
Q12 2SC4081
Q13 2SK853
Q14 2SC4081
Q58 2SC4081
Q15 2SA1576
Q16 2SC4081
Q17 2SC4081
Q18 2SA1576
Q19 2SC4081
Q20 2SK853
Q21
Q22 2SC4081
Q59 2SC4081
Q23 2SA1576
Q24 2SC4081
Q25 2SA1576
Q26 2SA1576
Q33 2SA1576
Q34 2SC4081
Q35 2SA1576
Q36
Q43 2SA1576
Q44 2SC4081
Q51 2SC4081
Q52 2SC4081
Q53 2SC4081
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
⑰
⑱
⑲
⑳


RV18:DL CLK ADJ
IC23(1/4) SN74HC02ANS
IC12 TC7S08F
IC23(2/4) SN74HC02ANS
IC23(3/4) SN74HC02ANS
IC23(4/4) SN74HC02ANS
Q23 2SA1576
Q24 2SC4081
IC14 CXL5504M
IC15 CXL5504M
Q25 2SA1576
Q26 2SA1576
Q27 2SC4081
Q28 2SC4178
Q29 2SC4178
Q30 2SA1576
Q31 2SC4081
Q32 2SA1576
TP7
20
TP8
21
CN1(30/60)
G IE OUT
B15
PR, A17
RV7;1H LEVEL BALLANCE
RV8;1H LEVEL ADJ
IC21(1/2) SN74HC74ANS
IC21(2/2) SN74HC74ANS
IC22(1/2) SN74HC74ANS
IC22(2/2) SN74HC74ANS
Q33 2SA1576
Q34 2SC4081
IC16 CXL5504M
IC17 CXL5504M
Q35 2SA1576
Q36 2SA1576
Q37 2SC4081
Q38 2SC4178
Q39 2SC4178
Q40 2SA1576
Q41 2SC4081
Q42 2SA1576
TP9
22
RV9;2H LEVEL BALLANCE
RV10;2H LEVEL ADJ
Q51 2SC4081
Q52 2SC4081
Q53 2SC4081
IC18(1/3) TC40H027F
IC18(2/3) TC40H027F
IC18(3/3) TC40H027F
IC19 TC40H193F
IC20(1/4) TC40H000F
IC20(2/4) TC40H000F
IC20(3/4) TC40H000F
IC20(4/4) TC40H000F
Q60 2SC4081
Q61 2SA1576
NTSC only CB 75% → 100%
S1 (N)
75% CB
100% CB
CN1(27/60)
R CB OUT(X)
A14
PR, A16
CN1(25/60)
G CB OUT(X)
A13
PR, A15
CN1(23/60)
B CB OUT(X)
A12
PR, A14
CN1(37/60)
G PR OUT(X)
A19
CN1(29/60)
CB(G)
A15
RV13:YH MIX ADJ
RV14:BARS CK ADJ
RV16;CB ADJ(75%)
RV17;CB ADJ(100%)
Q7 2SC4081
Q57 2SC4081
Q14 2SC4081
Q58 2SC4081
Q22 2SC4081
Q59 2SC4081
Q43 2SA1576
Q44 2SC4081
Q45 2SC4178
Q46 2SC4178
Q47 2SC4081
Q48 2SC4081
Q49 2SC4081
Q50 2SC4178
IC6 TC4S69F
IC7(1/4) TC40H008F
IC7(2/4) TC40H008F
IC9(1/2) SN74HC74ANS
IC9(2/2) SN74HC74ANS
IC7(3/4) TC40H008F
IC7(4/4) TC40H008F
IC11 TC4S69F
TP10
TP11
CN1(22/60)
DTL OUT
B11
PR, A13
CN1(21/60)
YL OUT
A11
ES, B25
RV11;DTL MIX ADJ
RV12;HV RATIO
L13 22μH
1
2
3
4
5
E
F
G
H
I
J
K
L

NOTE
*

REF. NO.	CHANGE INFORMATION	SERIAL NO.
C88	10/16V ⟶ 10/20V	11, 236-(UC) 30, 491-(J) 41, 351-(EK)
C121, 122	ADDED	
IC13	DELETED	
IC23	SC7S02F→SN74HC02ANS	
R76	DELETED	
R184	ADDED	
R185	ADDED	
R186, 187	ADDED	
R190	ADDED	
R193, 195 R197	ADDED	
R198	ADDED	
RV18	ADDED	

NOTE

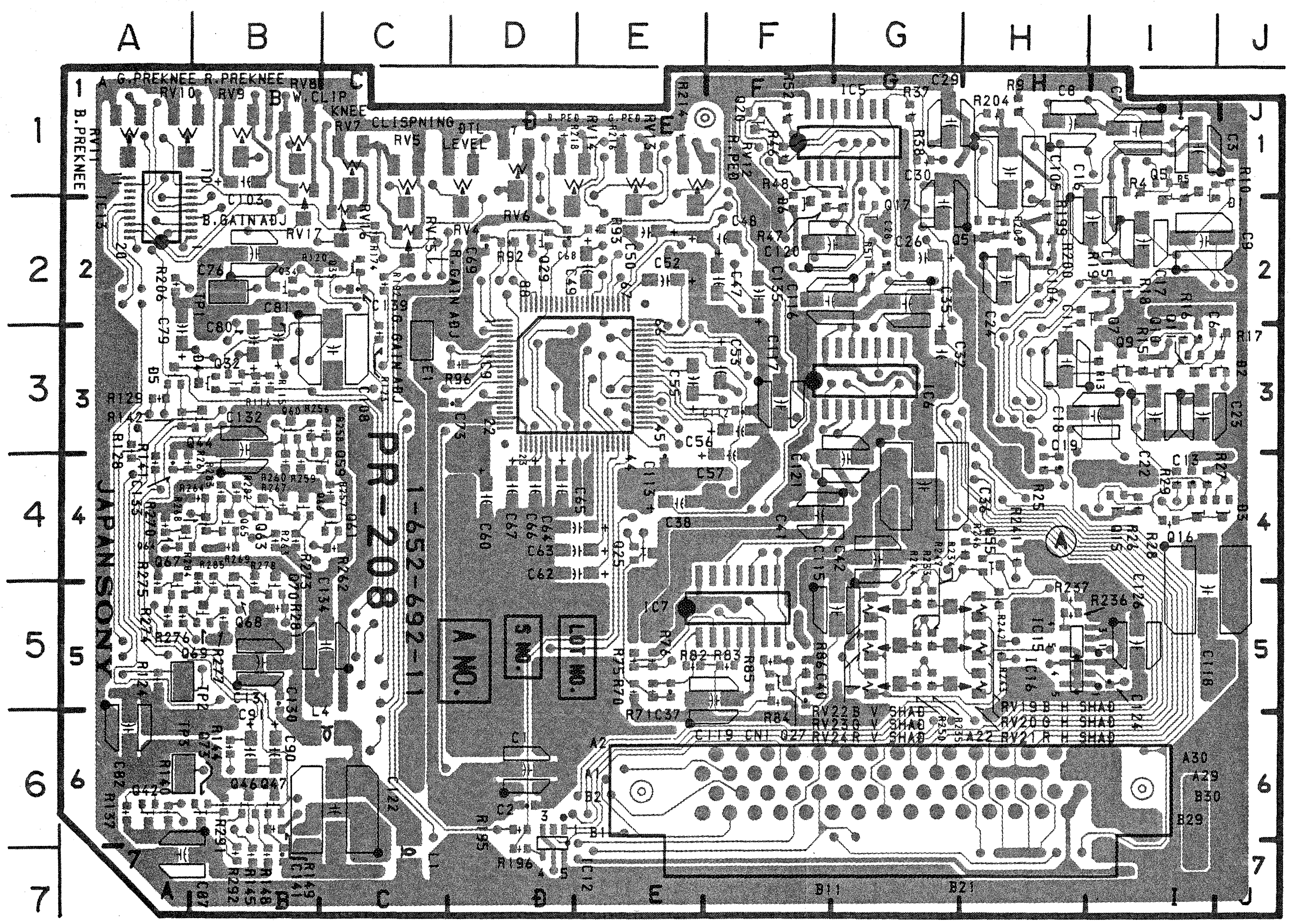
1. NM : NO MOUNT
2. (N) : NTSC only
3. (P) : PAL only

IE-33/33P BOARD

UVW-100(UC)
UVW-100(J)
UVW-100P(EK)
B-UVW100-IE33/M

PR-208 BOARD

SERIAL No. 10001-11235 (UC)
30001-30490 (J)
40001-41350 (EK)


A
B
C
D
E
F
G
H
I
J
1
2
3
4
5
6
7
G.PREKNEE
R.PREKNEE
B.PREKNEE
W.CLIP
KNEE
CLISPNING
DTL LEVEL
B.GAIN ADJ
R.GAIN ADJ
G.GAIN ADJ
PR-208
1-652-692-11
JAPAN SONY
A NO.
S NO.
LOT NO.
RV19 B H SHAD
RV20 G H SHAD
RV21 R H SHAD
RV22 B V SHAD
RV23 G V SHAD
RV24 R V SHAD
CN1

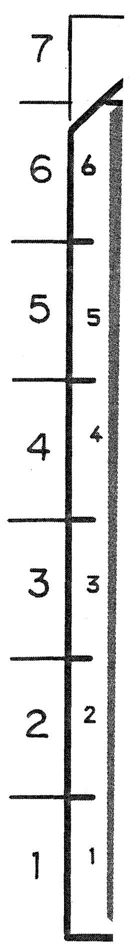
PR-208 -A SIDE-
1-652-692-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

PR-208(1-652-692-11)

* ; B SIDE

CN1	F-6	IC6	G-3	Q5	I-1	*Q23	F-3	*Q43	B-6	Q70	B-5	RV17	B-2
		IC7	E-5	*Q6	H-3	*Q24	F-3	Q44	B-3	*Q71	C-2		
D1	J-2	IC9	D-3	Q7	I-2	Q25	E-4	*Q45	B-6	*Q72	B-6	TP1	B-2
D2	J-3	*IC10	B-4	*Q8	I-3	*Q26	E-5	Q46	B-6	Q73	B-6	TP2	B-5
D3	J-4	IC12	E-7	Q9	I-3	Q27	F-6	Q47	B-6			TP3	A-6
D4	B-3	IC13	A-2	Q10	I-3	*Q28	G-4	Q51	G-2	RV4	D-2		
D5	A-3	*IC14	H-2	Q11	I-3	Q29	D-2	*Q52	A-2	RV5	C-1		
D6	F-2			*Q12	H-3	*Q30	B-2	Q59	C-4	RV6	D-2		
*D8	F-4	L1	C-7	*Q13	H-4	*Q31	B-2	Q60	B-3	RV7	C-1		
*D10	F-2	*L2	I-5	*Q14	I-3	Q32	B-3	Q61	C-4	RV8	B-1		
		L3	I-5	Q15	I-4	*Q33	C-2	*Q62	B-4	RV9	B-1		
E1	C-3	L4	C-6	Q16	I-4	Q34	B-2	Q63	B-4	RV10	A-1		
		*L5	B-6	Q17	G-2	Q35	C-2	Q64	A-4	RV11	A-1		
*IC1	I-2			*Q18	F-1	*Q38	A-3	Q65	B-4	RV12	F-1		
*IC2	H-2	*Q1	I-1	*Q19	G-2	*Q39	B-6	Q66	B-4	RV13	E-1		
*IC3	I-4	*Q2	J-2	Q20	F-1	*Q40	A-6	Q67	A-4	RV14	E-1		
*IC4	G-3	*Q3	J-2	*Q21	G-3	*Q41	A-5	Q68	B-5	RV15	C-2		
IC5	G-1	*Q4	I-2	*Q22	G-4	Q42	A-6	Q69	B-5	RV16	C-2		

* ; B SIDE



PR-2

* ; E

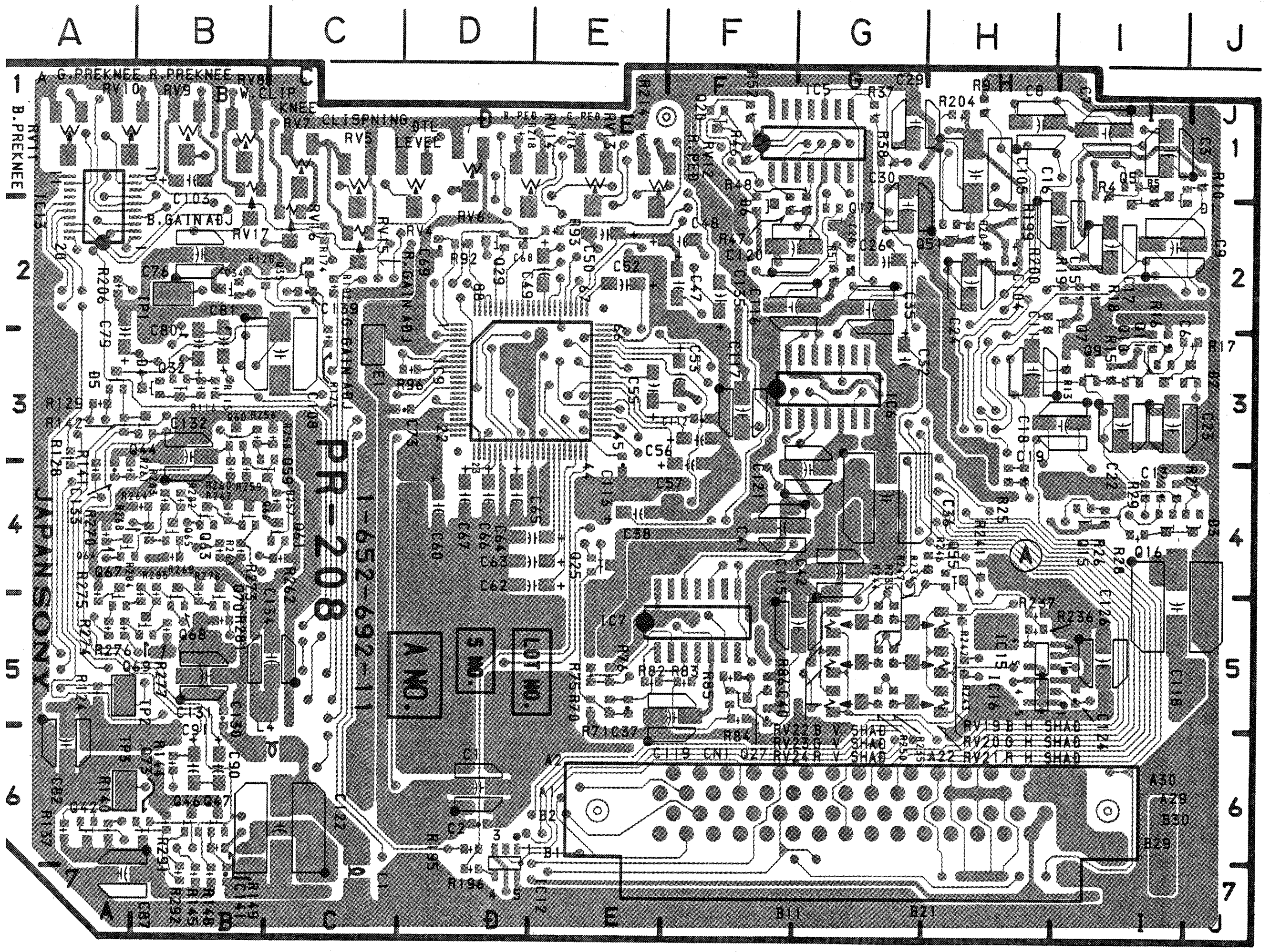
CN1

D1
D2
D3
D4
D5
D6
*D8
*D1

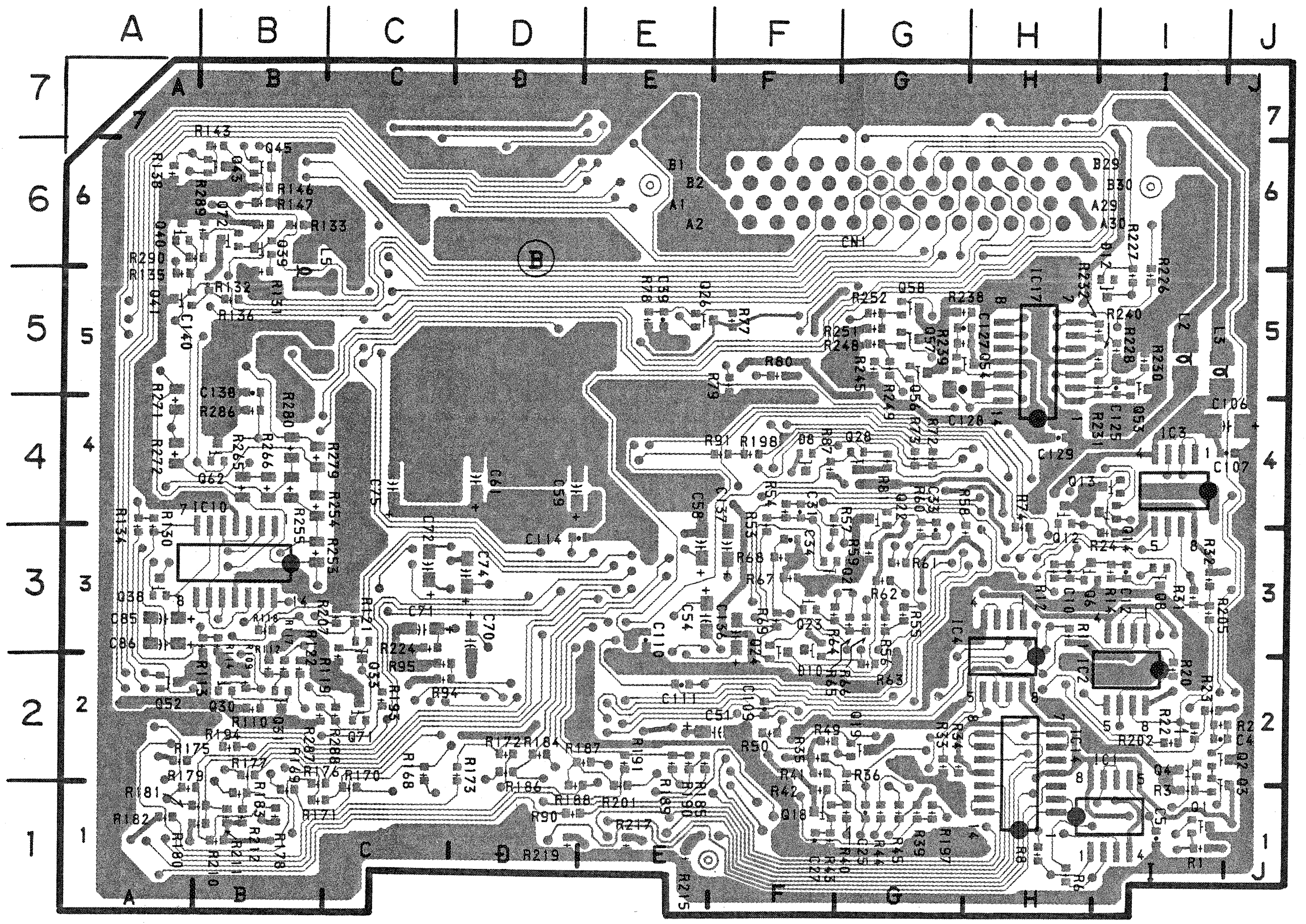
E1

*IC1
*IC
*IC
*IC
IC

IAL No. 10001-11235 (UC)
30001-30490 (J)
40001-41350 (EK)



PR-208 -A SIDE-
1-652-692-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)



PR-208 -B SIDE-
1-652-692-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

-208(1-652-692-11)

; B SIDE

N1	F-6	IC6	G-3	Q5	I-1	*Q23	F-3	*Q43	B-6	Q70	B-5	RV17	B-2
		IC7	E-5	*Q6	H-3	*Q24	F-3	Q44	B-3	*Q71	C-2		
1	J-2	IC9	D-3	Q7	I-2	Q25	E-4	*Q45	B-6	*Q72	B-6	TP1	B-2
2	J-3	*IC10	B-4	*Q8	I-3	*Q26	E-5	Q46	B-6	Q73	B-6	TP2	B-5
3	J-4	IC12	E-7	Q9	I-3	Q27	F-6	Q47	B-6			TP3	A-6
4	B-3	IC13	A-2	Q10	I-3	*Q28	G-4	Q51	G-2	RV4	D-2		
5	A-3	*IC14	H-2	Q11	I-3	Q29	D-2	*Q52	A-2	RV5	C-1		
6	F-2			*Q12	H-3	*Q30	B-2	Q59	C-4	RV6	D-2		
8	F-4	L1	C-7	*Q13	H-4	*Q31	B-2	Q60	B-3	RV7	C-1		
10	F-2	*L2	I-5	*Q14	I-3	Q32	B-3	Q61	C-4	RV8	B-1		
		L3	I-5	Q15	I-4	*Q33	C-2	*Q62	B-4	RV9	B-1		
1	C-3	L4	C-6	Q16	I-4	Q34	B-2	Q63	B-4	RV10	A-1		
		*L5	B-6	Q17	G-2	Q35	C-2	Q64	A-4	RV11	A-1		
C1	I-2			*Q18	F-1	*Q38	A-3	Q65	B-4	RV12	F-1		
C2	H-2	*Q1	I-1	*Q19	G-2	*Q39	B-6	Q66	B-4	RV13	E-1		
C3	I-4	*Q2	J-2	Q20	F-1	*Q40	A-6	Q67	A-4	RV14	E-1		
C4	G-3	*Q3	J-2	*Q21	G-3	*Q41	A-5	Q68	B-5	RV15	C-2		
C5	G-1	*Q4	I-2	*Q22	G-4	Q42	A-6	Q69	B-5	RV16	C-2		

* ; B SIDE

PR-208(1-652-692-11)

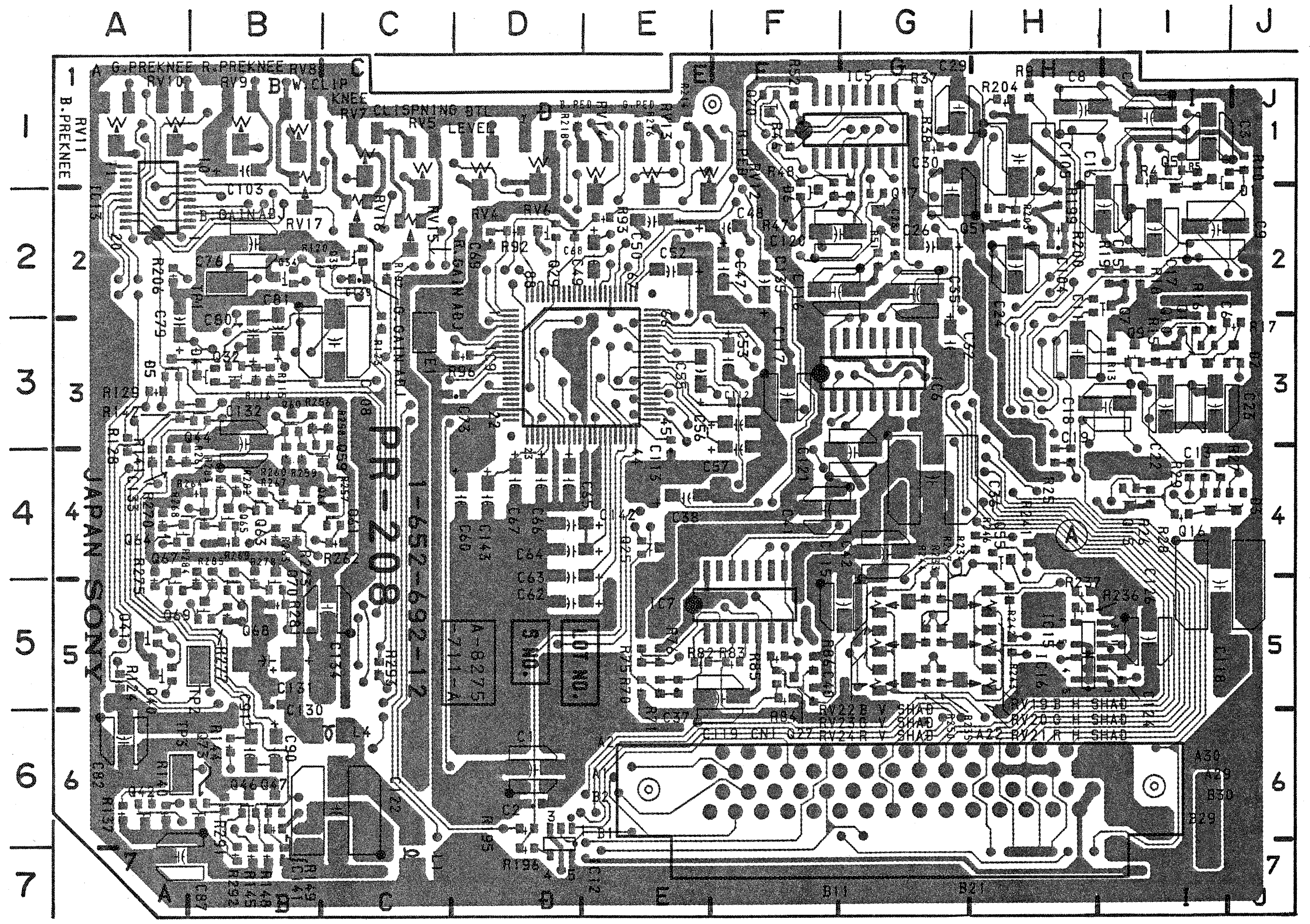
* ; B SIDE

CN1	F-6	IC6	G-3	Q5	I-1	*Q23	F-3	*Q43	B-6	Q70	B-5	RV17	B-2
		IC7	E-5	*Q6	H-3	*Q24	F-3	Q44	B-3	*Q71	C-2		
D1	J-2	IC9	D-3	Q7	I-2	Q25	E-4	*Q45	B-6	*Q72	B-6	TP1	B-2
D2	J-3	*IC10	B-4	*Q8	I-3	*Q26	E-5	Q46	B-6	Q73	B-6	TP2	B-5
D3	J-4	IC12	E-7	Q9	I-3	Q27	F-6	Q47	B-6			TP3	A-6
D4	B-3	IC13	A-2	Q10	I-3	*Q28	G-4	Q51	G-2	RV4	D-2		
D5	A-3	*IC14	H-2	Q11	I-3	Q29	D-2	*Q52	A-2	RV5	C-1		
D6	F-2			*Q12	H-3	*Q30	B-2	Q59	C-4	RV6	D-2		
*D8	F-4	L1	C-7	*Q13	H-4	*Q31	B-2	Q60	B-3	RV7	C-1		
*D10	F-2	*L2	I-5	*Q14	I-3	Q32	B-3	Q61	C-4	RV8	B-1		
		L3	I-5	Q15	I-4	*Q33	C-2	*Q62	B-4	RV9	B-1		
E1	C-3	L4	C-6	Q16	I-4	Q34	B-2	Q63	B-4	RV10	A-1		
		*L5	B-6	Q17	G-2	Q35	C-2	Q64	A-4	RV11	A-1		
*IC1	I-2			*Q18	F-1	*Q38	A-3	Q65	B-4	RV12	F-1		
*IC2	H-2	*Q1	I-1	*Q19	G-2	*Q39	B-6	Q66	B-4	RV13	E-1		
*IC3	I-4	*Q2	J-2	Q20	F-1	*Q40	A-6	Q67	A-4	RV14	E-1		
*IC4	G-3	*Q3	J-2	*Q21	G-3	*Q41	A-5	Q68	B-5	RV15	C-2		
IC5	G-1	*Q4	I-2	*Q22	G-4	Q42	A-6	Q69	B-5	RV16	C-2		

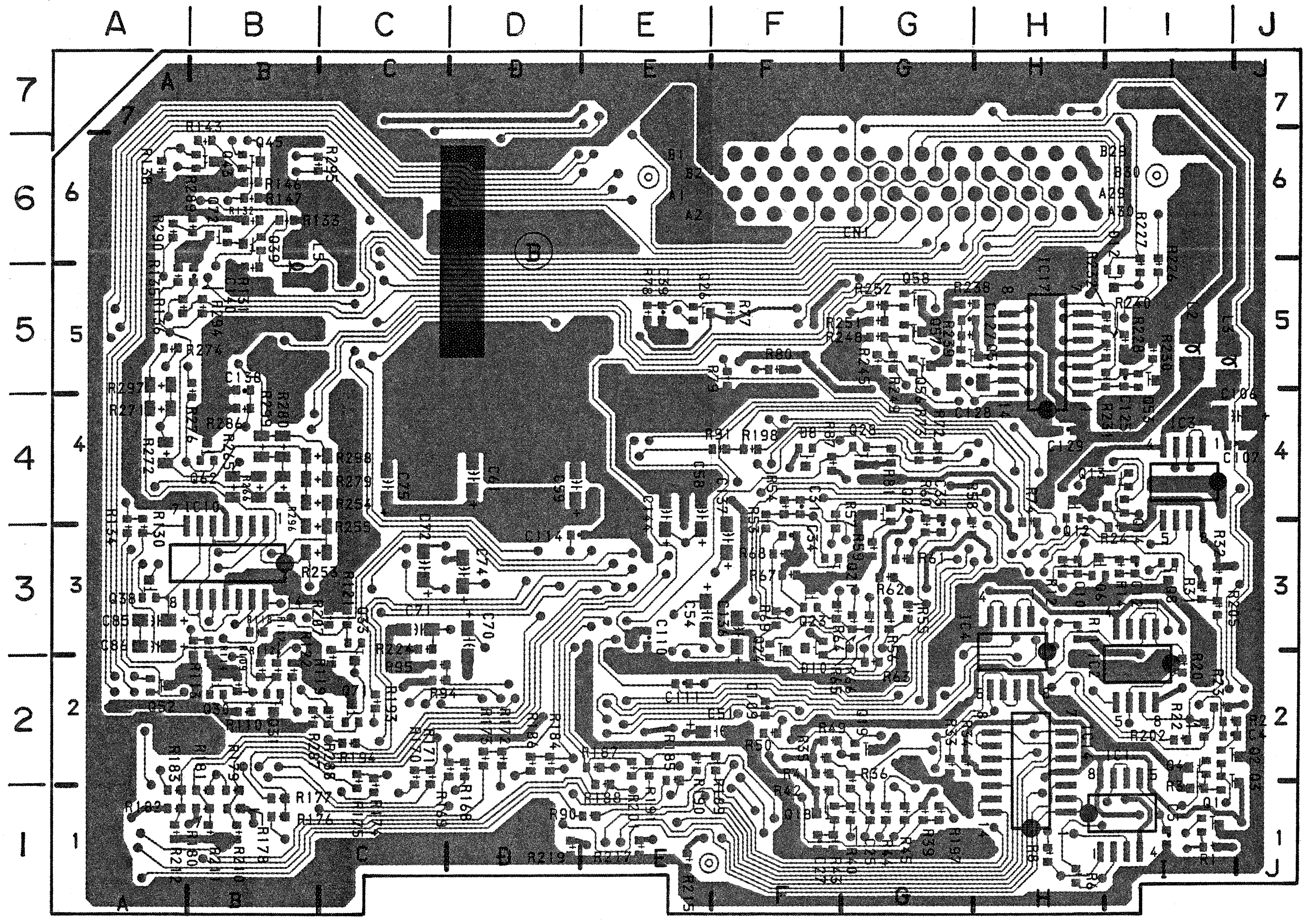
* ; B SIDE

PR-208 BOARD

SERIAL No. 11236 and higher (UC)
30491 and higher (J)
41351 and higher (EK)



PR-208 -A SIDE-
1-652-692-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)



PR-208 -B SIDE-
1-652-692-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

PR-208(1-652-692-12)

*; B SIDE

CN1	F-6
D1	J-2
D2	J-3
D3	J-4
D4	B-3
D5	A-3
D6	F-2
*D8	F-4
*D10	F-2
E1	C-3
*IC1	I-2
*IC2	H-2
*IC3	I-4
*IC4	G-3
IC5	G-1
IC6	G-3
IC7	E-5
IC9	D-3
*IC10	B-4
IC12	E-7
IC13	A-2
*IC14	H-2
L1	C-7
*L2	I-5
L3	I-5
L4	C-6
*L5	B-6
*Q1	I-1
*Q2	J-2
*Q3	J-2
*Q4	I-2
Q5	I-1
*Q6	H-3
Q7	I-2
*Q8	I-3
Q9	I-3
Q10	I-3
Q11	I-3
*Q12	H-3
*Q13	H-4
*Q14	I-3
Q15	I-4
Q16	I-4
Q17	G-2
*Q18	F-1
*Q19	G-2
Q20	F-1
*Q21	G-3
*Q22	G-4
*Q23	F-3
*Q24	F-3
Q25	E-4
*Q26	E-5
Q27	F-6
*Q28	G-4
Q29	D-2
*Q30	B-2
*Q31	B-2
Q32	B-3
*Q33	C-2
Q34	B-2
Q35	C-2
*Q38	A-3
*Q39	B-6
*Q40	A-6
*Q41	A-5
Q42	A-6
*Q43	B-6
Q44	B-3
*Q45	B-6
Q46	B-6
Q47	B-6
Q51	G-2
*Q52	A-2
Q59	C-4
Q60	B-3
Q61	C-4
*Q62	B-4
Q63	B-4
Q64	A-4
Q65	B-4
Q66	B-4
Q67	A-4
Q68	B-5
Q69	B-5
Q70	B-5
*Q71	C-2
*Q72	B-6
Q73	B-6
RV4	D-2
RV5	C-1
RV6	D-2
RV7	C-1
RV8	B-1
RV9	B-1
RV10	A-1
RV11	A-1
RV12	F-1
RV13	E-1
RV14	E-1
RV15	C-2
RV16	C-2
RV17	B-2
TP1	B-2
TP2	B-5
TP3	A-6

*; B SIDE

PR-208(1-652-692-12)

*; B SIDE

CN1	F-6
D1	J-2
D2	J-3
D3	J-4
D4	B-3
D5	A-3
D6	F-2
*D8	F-4
*D10	F-2
E1	C-3
*IC1	I-2
*IC2	H-2
*IC3	I-4
*IC4	G-3
IC5	G-1
IC6	G-3
IC7	E-5
IC9	D-3
*IC10	B-4
IC12	E-7
IC13	A-2
*IC14	H-2
L1	C-7
*L2	I-5
L3	I-5
L4	C-6
*L5	B-6
*Q1	I-1
*Q2	J-2
*Q3	J-2
*Q4	I-2
Q5	I-1
*Q6	H-3
Q7	I-2
*Q8	I-3
Q9	I-3
Q10	I-3
Q11	I-3
*Q12	H-3
*Q13	H-4
*Q14	I-3
Q15	I-4
Q16	I-4
Q17	G-2
*Q18	F-1
*Q19	G-2
Q20	F-1
*Q21	G-3
*Q22	G-4
*Q23	F-3
*Q24	F-3
Q25	E-4
*Q26	E-5
Q27	F-6
*Q28	G-4
Q29	D-2
*Q30	B-2
*Q31	B-2
Q32	B-3
*Q33	C-2
Q34	B-2
Q35	C-2
*Q38	A-3
*Q39	B-6
*Q40	A-6
*Q41	A-5
Q42	A-6
*Q43	B-6
Q44	B-3
*Q45	B-6
Q46	B-6
Q47	B-6
Q51	G-2
*Q52	A-2
Q59	C-4
Q60	B-3
Q61	C-4
*Q62	B-4
Q63	B-4
Q64	A-4
Q65	B-4
Q66	B-4
Q67	A-4
Q68	B-5
Q69	B-5
Q70	B-5
*Q71	C-2
*Q72	B-6
Q73	B-6
RV4	D-2
RV5	C-1
RV6	D-2
RV7	C-1
RV8	B-1
RV9	B-1
RV10	A-1
RV11	A-1
RV12	F-1
RV13	E-1
RV14	E-1
RV15	C-2
RV16	C-2
RV17	B-2
TP1	B-2
TP2	B-5
TP3	A-6

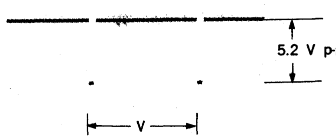
*; B SIDE

VIDEO PROCESS

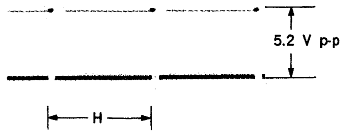
注意：
1. DC電圧はデジタル電圧計による値。
   No Mark : CAM mode
   ( ) Mark : BARS mode
2. 波形写真，およびDC電圧は下記条件での測定。
   - グレースケールチャートを撮像し，波形モニターにて，ビデオ出力の白レベルが100IREになるようにレンズ絞りをセットする。
   - OUTPUT : CAM
   - GAIN : 0dB
   - WHITE BAL : PRE
   - SHUTTER : OFF

NOTE :
1. All voltage are DC. measured with a digital voltmeter.
   No Markl : CAM mode
   ( ) Mark : BARS mode
2. All waveforms are taken and DC voltage is measured in condition below.
   - Shoot the gray scale chart. Adjust lens iris so that a white level is 100IRE for NTSC or 700 mV for PAL on the waveform monitor.
   - OUTPUT : CAM
   - GAIN : 0dB
   - WHITE BAL : PRE
   - SHUTTER : OFF

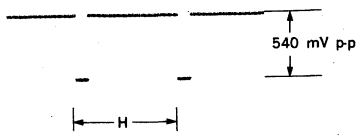
① CN1-B7 VD CAM side



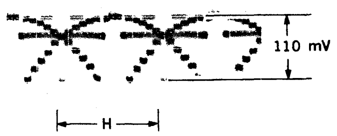
② CN1-A10 CLP 3 CAM side



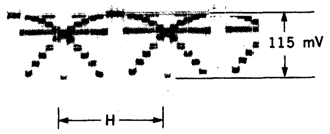
③ CN1-A9 P BLKG CAM side



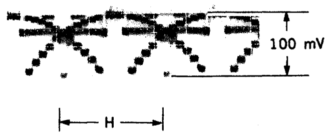
④ CN1-A28 R VA CAM side



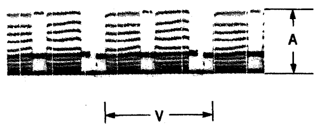
⑤ CN1-A26 G VA CAM side



⑥ CN1-A24 B VA CAM side

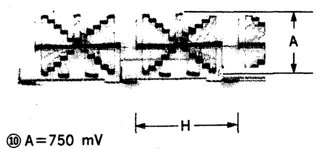


⑦ ⑧ ⑨ CN1-A20/A19/A18 CAM side R/G/B WB



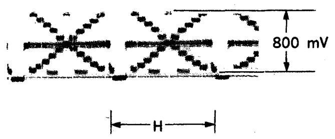
⑦A=190 mV p-p
⑧A=290 mV p-p
⑨A=190 mV p-p

⑩ ⑬ ⑯ TP1/TP2/TP3 CAM side R/G/B PR VIDEO

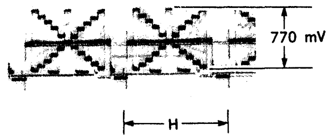


⑩A=750 mV
⑬A=840 mV
⑯A=920 mV

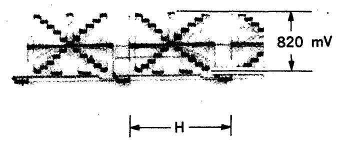
⑪ CN1-B23 R PR IC CAM side



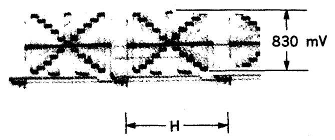
⑫ CN1-B22 R PR VIDEO CAM side



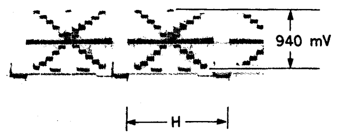
⑭ CN1-A17 G IE CAM side



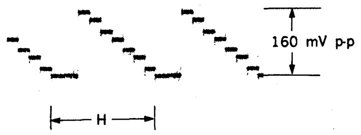
⑮ CN1-B21 G PR VIDEO CAM side



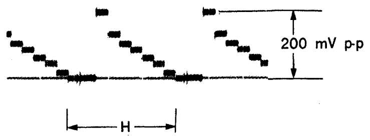
⑰ CN1-B20 B PR VIDEO CAM side



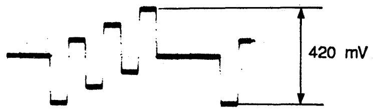
⑱ CN1-B16 Y VIDEO (for NTSC) BARS side



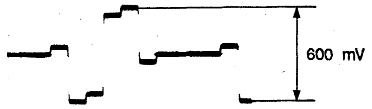
⑱ CN1-B16 Y VIDEO (for PAL) BARS side



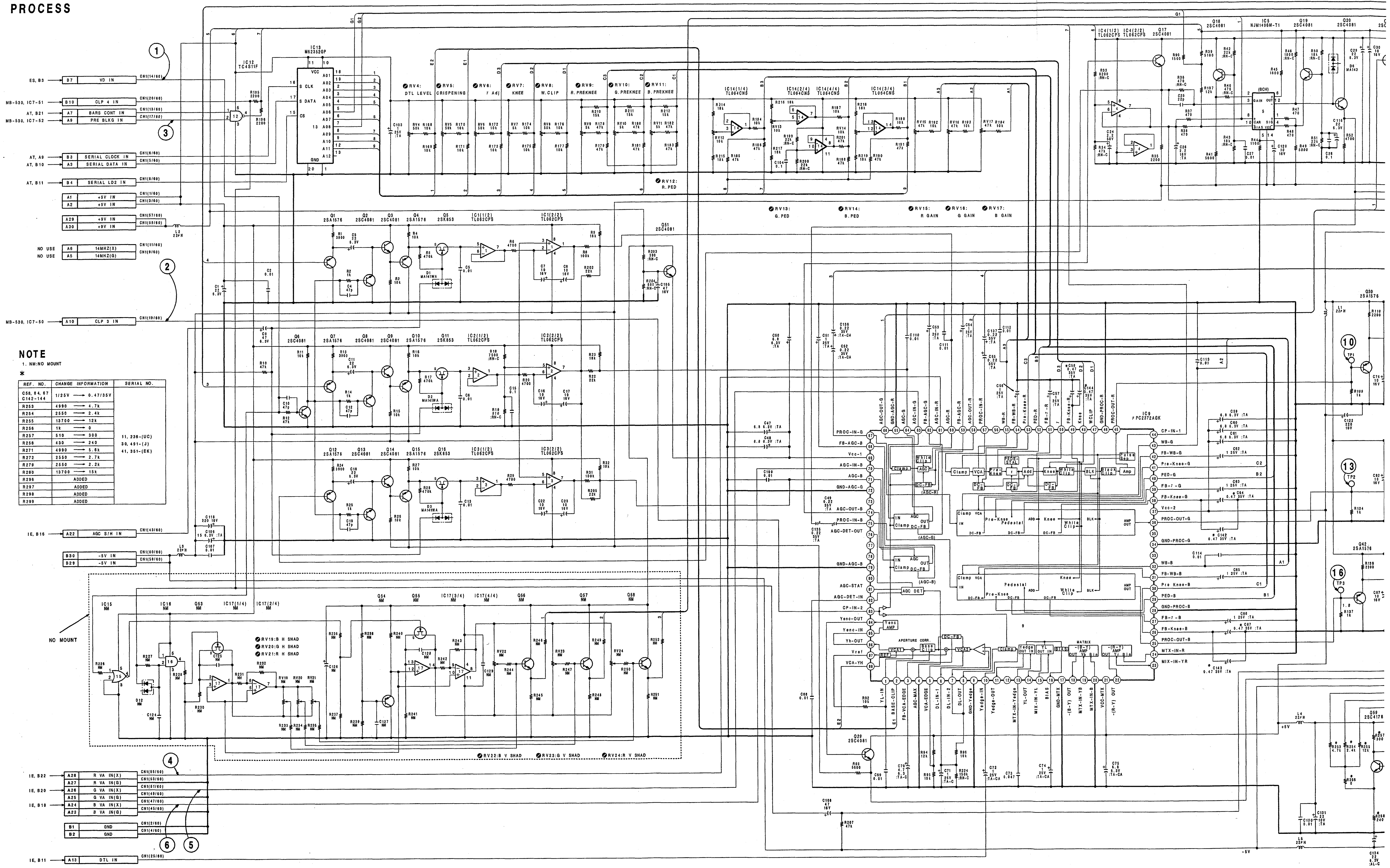
⑲ CN1-B17 B-Y VIDEO BARS side



⑳ CN1-B18 R-Y VIDEO BARS side



VIDEO PROCESS



ES, B3 → B7 VD IN CN1(14/60)
MB-530, IC7-51 → B10 CLP 4 IN CN1(20/60)
AT, B21 → A7 BARS CONT IN CN1(13/60)
MB-530, IC7-52 → A9 PRE BLKG IN CN1(17/60)
AT, A9 → B3 SERIAL CLOCK IN CN1(6/60)
AT, B10 → A3 SERIAL DATA IN CN1(5/60)
AT, B11 → B4 SERIAL LD2 IN CN1(8/60)
A1 +5V IN CN1(1/60)
A2 +5V IN CN1(3/60)
A29 +9V IN CN1(57/60)
A30 +9V IN CN1(59/60)
NO USE A6 14MHZ(X) CN1(11/60)
NO USE A5 14MHZ(G) CN1(9/60)
MB-530, IC7-50 → A10 CLP 3 IN CN1(19/60)
IE, B16 → A22 AGC S/H IN CN1(43/60)
B30 -5V IN CN1(60/60)
B29 -5V IN CN1(58/60)
IE, B22 → A28 R VA IN(X) CN1(55/60)
A27 R VA IN(G) CN1(53/60)
IE, B20 → A26 G VA IN(X) CN1(51/60)
A25 G VA IN(G) CN1(49/60)
IE, B18 → A24 B VA IN(X) CN1(47/60)
A23 B VA IN(G) CN1(45/60)
B1 GND CN1(2/60)
B2 GND CN1(4/60)
IE, B11 → A13 DTL IN CN1(25/60)
IC12 TC4S11F
IC13 M62352GP
IC14 TL064CNS
IC8 μPC2372AGK
IC5 NJM1496M-T1
IC1 TL062CPS
IC2 TL062CPS
IC3 TL062CPS
IC4 TL062CPS
RV4: DTL LEVEL
RV5: CRISPENING
RV6: γ Adj
RV7: KNEE
RV8: W.CLIP
RV9: R.PREKNEE
RV10: G.PREKNEE
RV11: B.PREKNEE
RV12: R.PED
RV13: G.PED
RV14: B.PED
RV15: R GAIN
RV16: G GAIN
RV17: B GAIN
RV19:B H SHAD
RV20:G H SHAD
RV21:R H SHAD
RV22:B V SHAD
RV23:G V SHAD
RV24:R V SHAD
NO MOUNT
TP1
TP2
TP3

NOTE

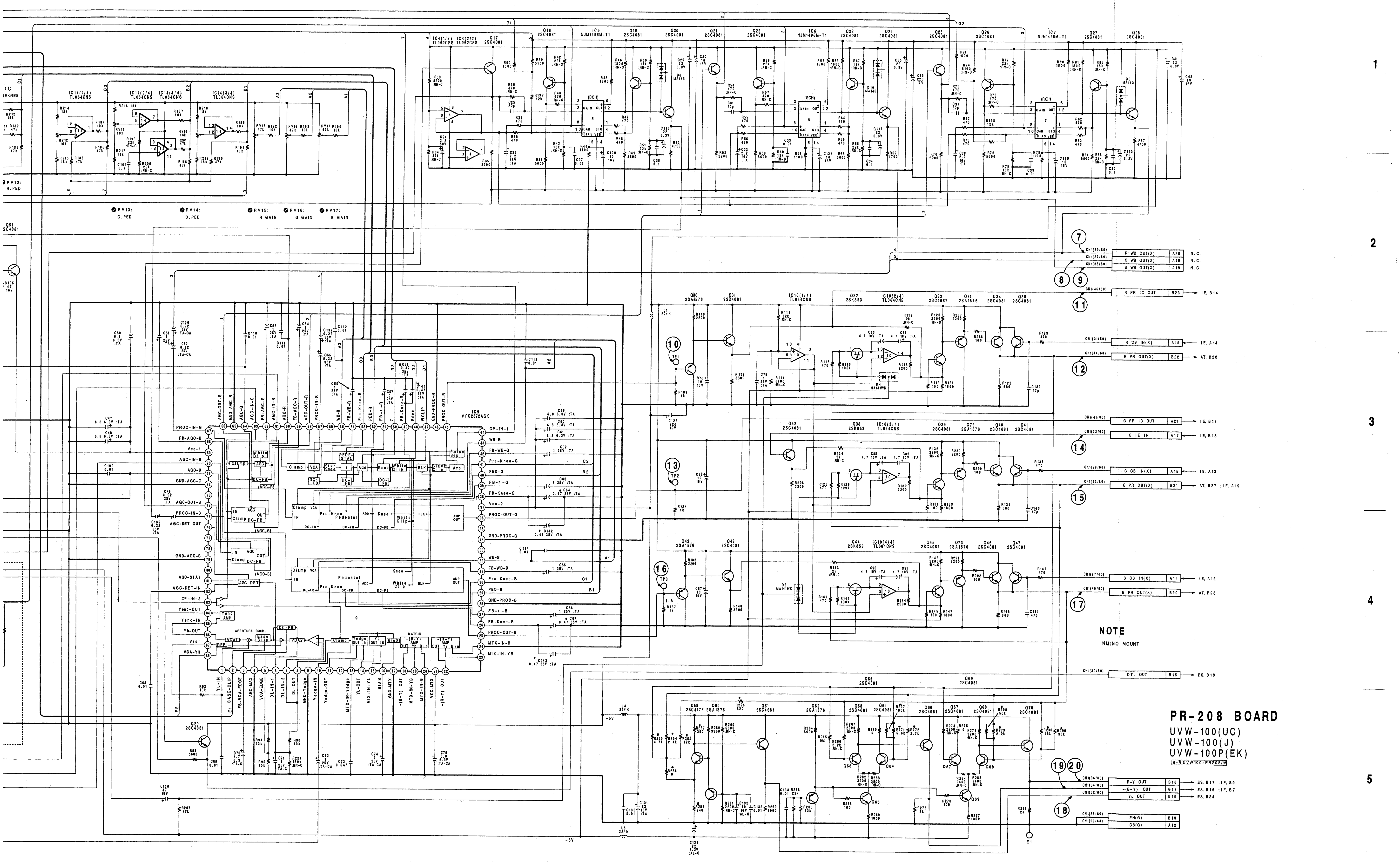
1. NM:NO MOUNT

*

REF. NO.	CHANGE INFORMATION	SERIAL NO.
C58, 64, 67 C142-144	1/25V → 0.47/35V	
R253	4990 → 4.7k	
R254	2550 → 2.4k	
R255	13700 → 12k	
R256	1k → 0	
R257	510 → 300	11, 236-(UC) 30, 491-(J) 41, 351-(EK)
R258	430 → 240	
R271	4990 → 5.6k	
R272	2550 → 2.7k	
R279	2550 → 2.2k	
R280	13700 → 15k	
R296	ADDED	
R297	ADDED	
R298	ADDED	
R299	ADDED	

UVW-100 (J)
UVW-100 (UC)
UVW-100P (EK)

A | B | C | D | E | F | G | H


IC3 NJM1496M-T1
IC5 NJM1496M-T1
IC7 NJM1496M-T1
IC4(1/2) TL062CPS
IC4(2/2) TL062CPS
IC14(1/4) TL064CNS
IC14(2/4) TL064CNS
IC14(4/4) TL064CNS
IC14(3/4) TL064CNS
(BCH)
(GCH)
(RCH)
RV12: R.PED
RV13: G.PED
RV14: B.PED
RV15: R GAIN
RV16: G GAIN
RV17: B GAIN
IC9 μPC2372AGK
IC10(1/4) TL064CNS
IC10(2/4) TL064CNS
IC10(3/4) TL064CNS
IC10(4/4) TL064CNS
TP1
TP2
TP3
PROC-IN-G
FB-AGC-R
Vcc-1
AGC-IN-B
AGC-B
GND-AGC-G
AGC-OUT-B
PROC-IN-B
AGC-DET-OUT
GND-AGC-B
AGC-STAT
AGC-DET-IN
CP-IN-2
Yenc-OUT
Yenc-IN
Yb-OUT
Vref
VCA-YH
CP-IN-1
WB-G
FB-WB-G
Pre-Knee-G
PED-G
FB-γ-G
FB-Knee-G
Vcc-2
PROC-OUT-G
GND-PROC-G
WB-B
FB-WB-B
Pre Knee-B
PED-B
GND-PROC-B
FB-γ-B
FB-Knee-B
PROC-OUT-B
MTX-IN-R
MIX-IN-YR
Clamp
VCA
Pedestal
Knee
White Clip
BLK
AMP
AGC DET
APERTURE CORR
MATRIX
R WB OUT(X)
G WB OUT(X)
B WB OUT(X)
N.C.
R PR IC OUT
R CB IN(X)
R PR OUT(X)
G PR IC OUT
G IE IN
G CB IN(X)
G PR OUT(X)
B CB IN(X)
B PR OUT(X)
DTL OUT
R-Y OUT
-(B-Y) OUT
YL OUT
EN(G)
CB(G)
IE, B14
IE, A14
AT, B26
IE, B13
IE, B15
IE, A13
AT, B27 ;IE, A19
IE, A12
AT, B26
ES, B18
ES, B17 ;IF, B9
ES, B16 ;IF, B7
ES, B24
+5V
-5V
E1
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
⑰
⑱
⑲
⑳
1
2
3
4
5
E
F
G
H
I
J
K
L

NOTE

NM:NO MOUNT

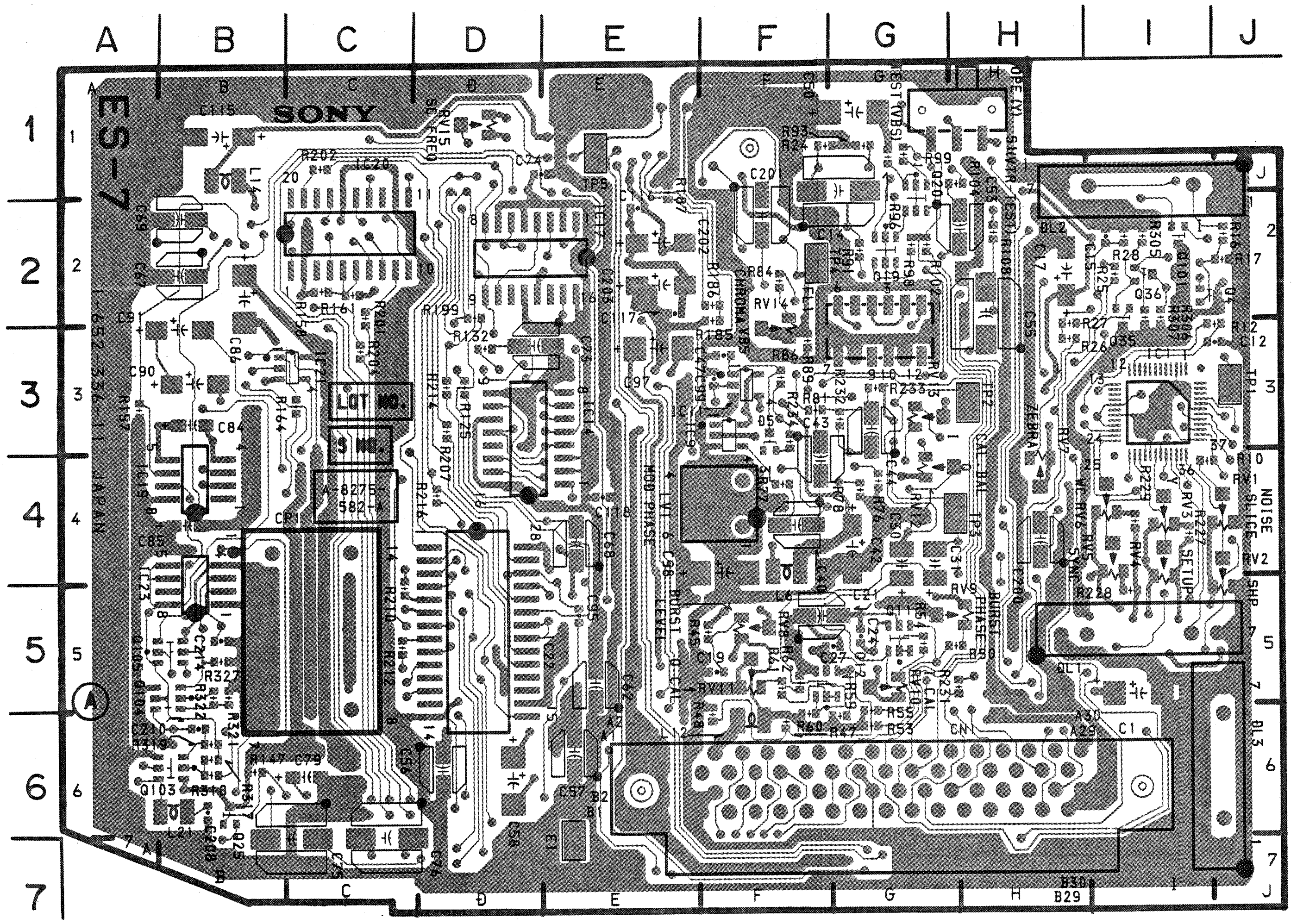
PR-208 BOARD

UVW-100(UC)
UVW-100(J)
UVW-100P(EK)

B-UVW100-PR208/M

ES-7(J)/7(UC)/7(P)

SERIAL No. 10001-11785 (UC)
30001-30520 (J)
40001-42700 (EK)



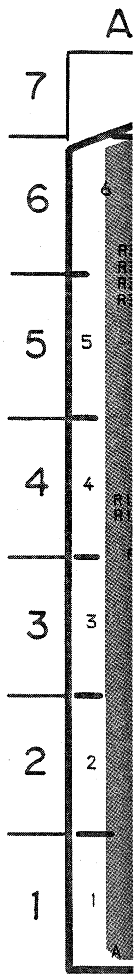
ES-7(J)/7(UC)/7(P) -A SIDE-
1-652-336-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

ES-7(J)/7(UC)/7(P)(1-652-336-11)

* ; B SIDE

CN1	H-6
DL1	H-5
DL2	H-2
DL3	J-6
*D1	H-4
*D2	B-7
*D3	C-1
*D4	C-4
D5	F-3
*D6	B-6
E1	E-7
FL1	F-2
IC1	I-3
*IC2	H-2
*IC3	H-3
*IC4	E-2
*IC5	E-3
*IC6	F-5
*IC7	E-4
*IC8	G-4
*IC10	F-3
IC11	E-3
*IC12	C-2
*IC13	C-4
IC14	E-3
*IC15	D-3
*IC16	D-2
IC17	E-2
IC19	A-4
IC20	C-1
IC21	C-3
IC22	E-5
IC23	A-4
*IC24	C-5
LV1	E-4
*L1	G-7
*L3	D-6
*L4	H-5
*L5	G-5
L6	F-5
*L7	E-5
*L8	A-5
*L10	E-5
*L11	E-5
L12	E-6
L14	B-1
*L20	E-6
L21	B-6
*Q1	I-6
*Q2	I-5
Q4	J-2
*Q5	J-2
*Q6	H-4
*Q7	H-5
*Q8	E-2
*Q9	E-2
*Q10	F-5
Q11	G-5
Q12	G-5
*Q13	F-5
*Q14	G-4
*Q15	H-4
*Q16	F-2
*Q17	F-2
*Q18	G-1
Q19	G-2
Q20	G-1
*Q21	H-2
*Q22	H-2
*Q23	C-6
*Q24	C-6
Q25	B-6
*Q26	A-4
*Q30	H-3
*Q31	I-4
*Q34	B-4
Q35	I-3
Q36	I-2
*Q100	I-6
Q101	I-2
*Q102	A-6
Q103	B-6
Q104	A-5
Q105	A-5
RV1	J-4
RV2	J-4
RV3	I-4
RV4	I-4
RV5	H-4
RV6	H-4
RV7	H-3
RV8	F-5
RV9	H-5
RV10	G-5
RV12	G-4
RV13	G-3
RV14	F-2
RV15	D-1
S1	H-1
TP1	J-3
TP2	H-3
TP3	H-4
TP4	G-2
TP5	E-1

* ; B SIDE



ES-7(

* ; B

CN1

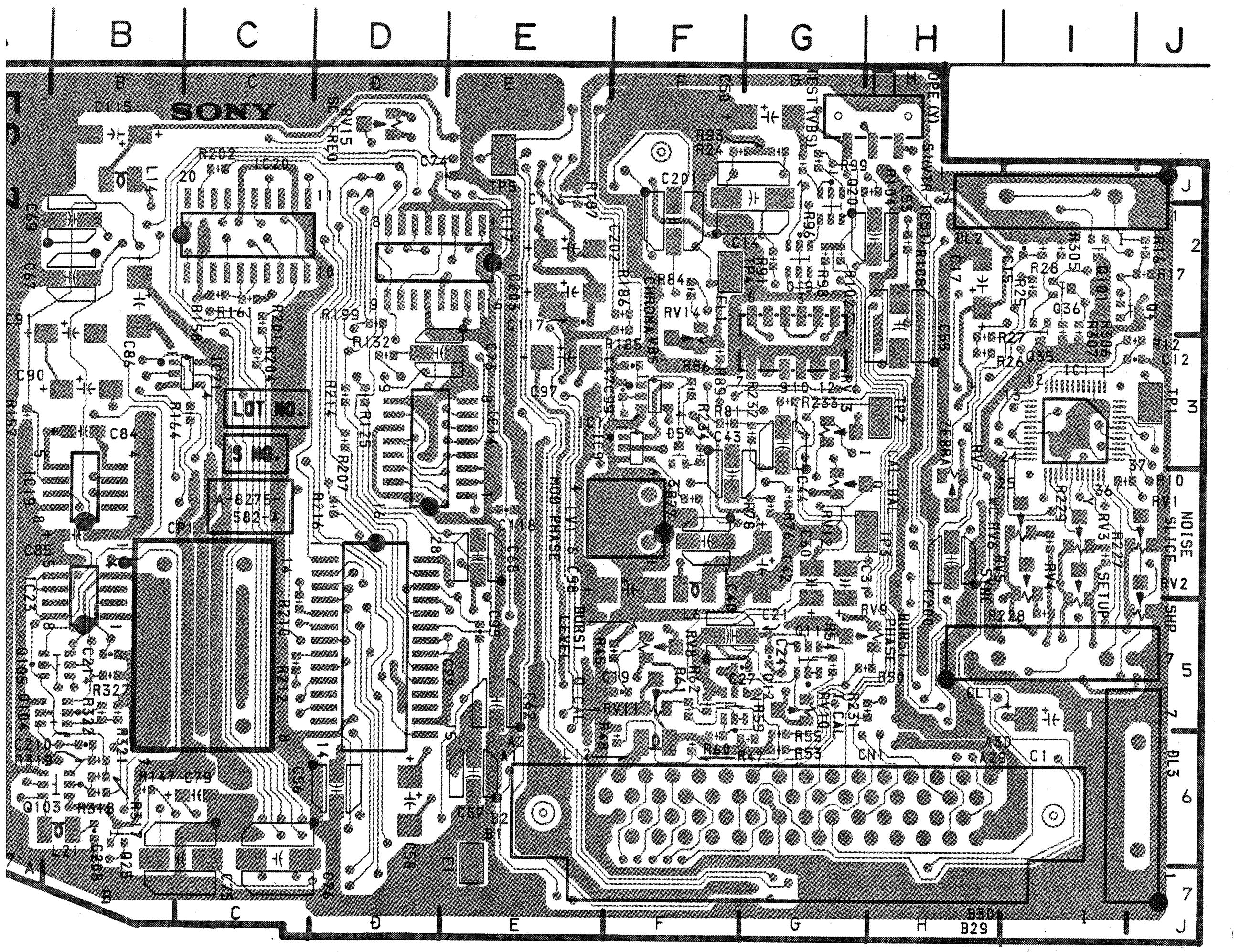
DL1
DL2
DL3

*D1
*D2
*D3
*D4
D5
*D6

E1

FL1

No. 10001-11785 (UC)
30001-30520 (J)
40001-42700 (EK)


B
C
D
E
F
G
H
I
J
SONY
LOT NO.
S NO.
A-8275-582-A
CHROMA
MOD PHASE
BURST PHASE
ZEBRA
NOISE SLICE
SETUP
SHP
IC1
IC20
IC21
CN1
DL1
DL2
DL3
TP1
TP2
TP3
TP5
RV1
RV2
RV3
RV4
RV8
C1
B29
B30
A29
A30
1
2
3
4
5
6
7

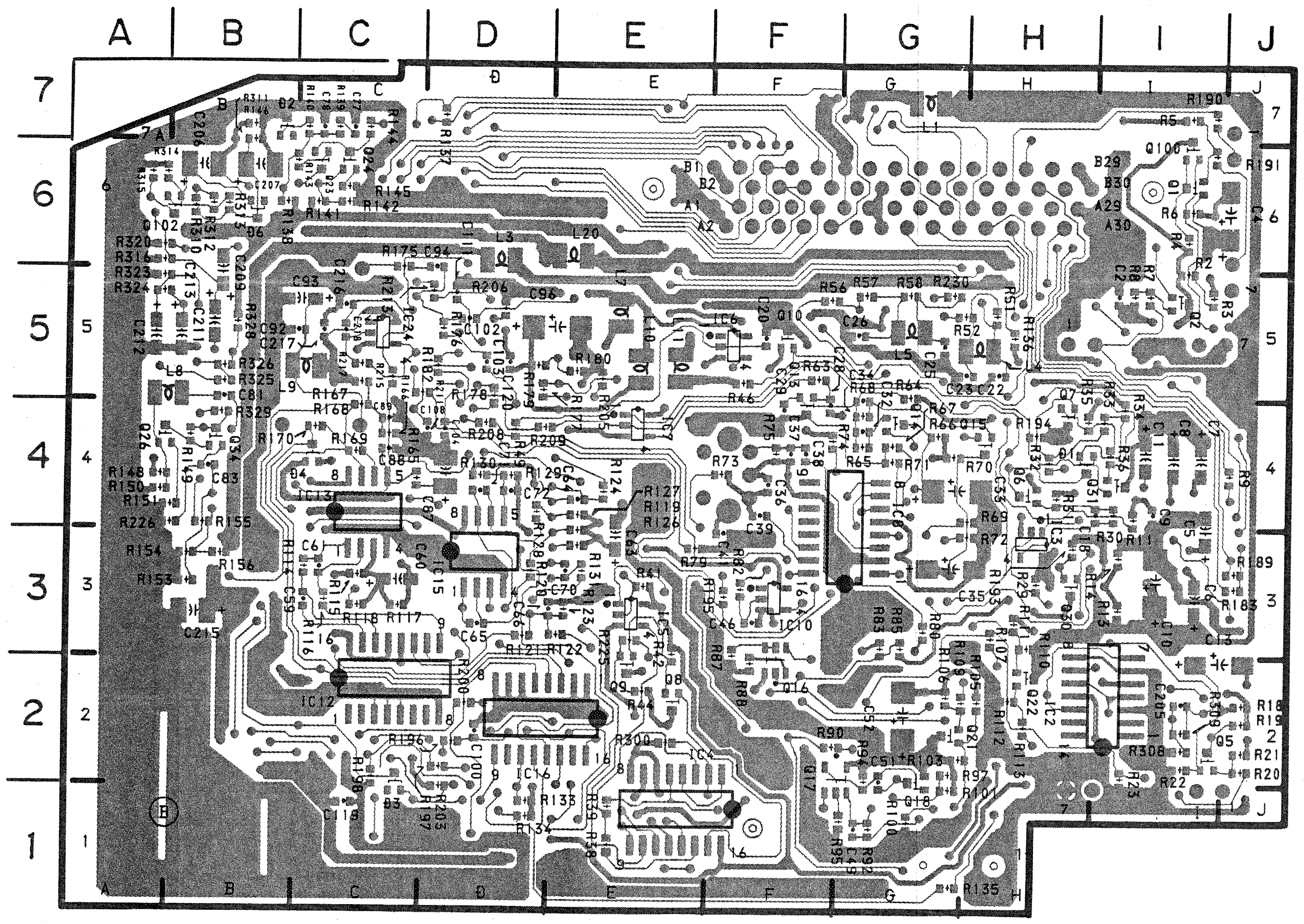
ES-7(J)/7(UC)/7(P) -A SIDE-
1-652-336-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

)/7(UC)/7(P)(1-652-336-11)

SIDE

	H-6	IC1	I-3	IC20	C-1	L12	E-6	*Q14	G-4	Q36	I-2	RV10	G-5
		*IC2	H-2	IC21	C-3	L14	B-1	*Q15	H-4	*Q100	I-6	RV12	G-4
	H-5	*IC3	H-3	IC22	E-5	*L20	E-6	*Q16	F-2	Q101	I-2	RV13	G-3
	H-2	*IC4	E-2	IC23	A-4	L21	B-6	*Q17	F-2	*Q102	A-6	RV14	F-2
	J-6	*IC5	E-3	*IC24	C-5			*Q18	G-1	Q103	B-6	RV15	D-1
		*IC6	F-5			*Q1	I-6	Q19	G-2	Q104	A-5		
	H-4	*IC7	E-4	LV1	E-4	*Q2	I-5	Q20	G-1	Q105	A-5	S1	H-1
	B-7	*IC8	G-4			Q4	J-2	*Q21	H-2				
	C-1	*IC10	F-3	*L1	G-7	*Q5	J-2	*Q22	H-2	RV1	J-4	TP1	J-3
	C-4	IC11	E-3	*L3	D-6	*Q6	H-4	*Q23	C-6	RV2	J-4	TP2	H-3
	F-3	*IC12	C-2	*L4	H-5	*Q7	H-5	*Q24	C-6	RV3	I-4	TP3	H-4
	B-6	*IC13	C-4	*L5	G-5	*Q8	E-2	Q25	B-6	RV4	I-4	TP4	G-2
		IC14	E-3	L6	F-5	*Q9	E-2	*Q26	A-4	RV5	H-4	TP5	E-1
	E-7	*IC15	D-3	*L7	E-5	*Q10	F-5	*Q30	H-3	RV6	H-4		
		*IC16	D-2	*L8	A-5	Q11	G-5	*Q31	I-4	RV7	H-3		
	F-2	IC17	E-2	*L10	E-5	Q12	G-5	*Q34	B-4	RV8	F-5		
		IC19	A-4	*L11	E-5	*Q13	F-5	Q35	I-3	RV9	H-5		

* ; B SIDE


A
B
C
D
E
F
G
H
I
J
1
2
3
4
5
6
7
IC1
IC3
IC4
IC5
IC6
IC10
IC12
IC13
IC15
IC16
L1
L3
L5
L20
Q100
R190
R191
B1
B2
A1
A2
B29
B30
A29
A30

ES-7(J)/7(UC)/7(P) -B SIDE-
1-652-336-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

ES-7(J)/7(UC)/7(P)(1-652-336-11)

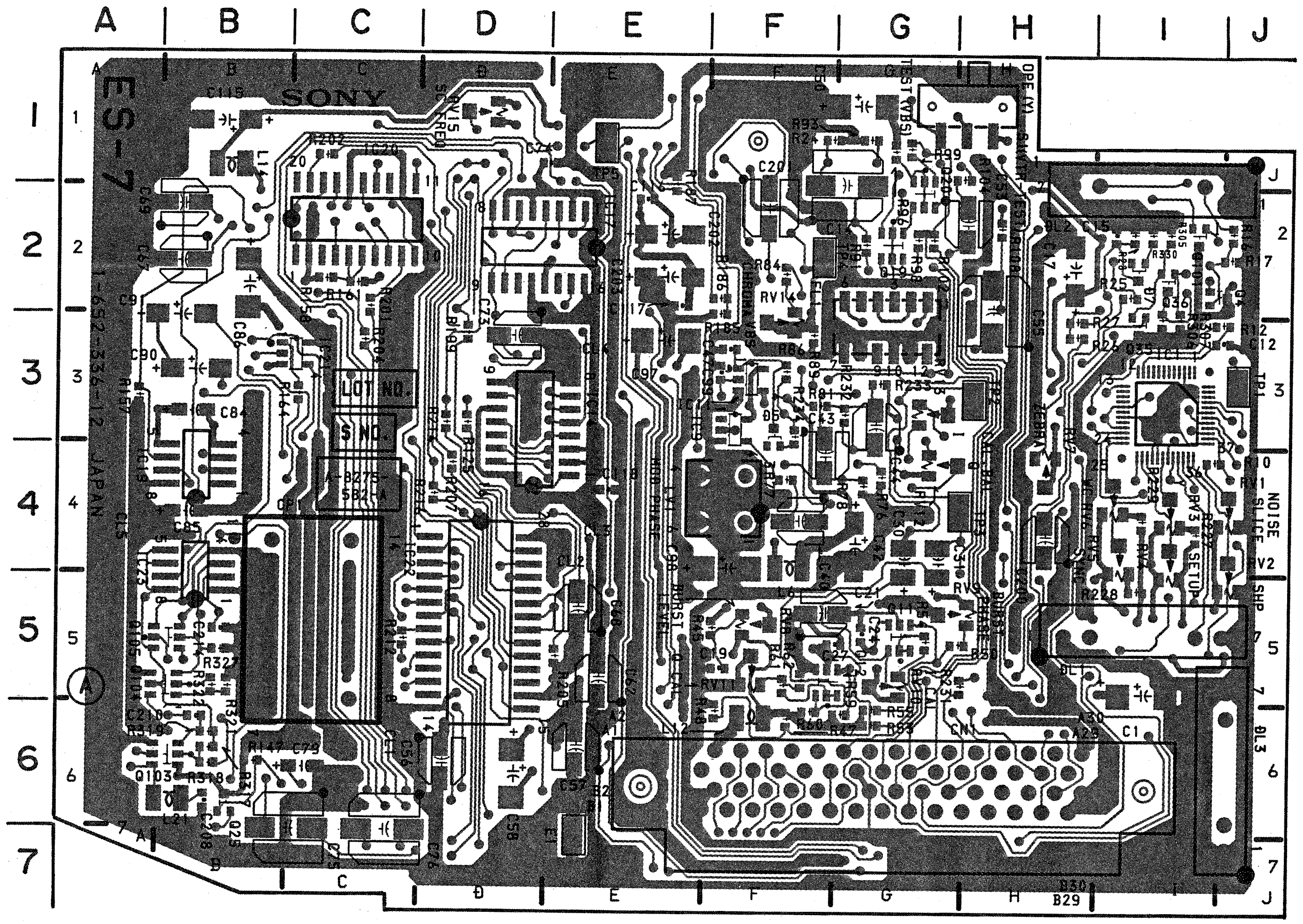
* ; B SIDE

CN1	H-6	IC1	I-3	IC20	C-1	L12	E-6	*Q14	G-4	Q36	I-2	RV10	G-5
		*IC2	H-2	IC21	C-3	L14	B-1	*Q15	H-4	*Q100	I-6	RV12	G-4
DL1	H-5	*IC3	H-3	IC22	E-5	*L20	E-6	*Q16	F-2	Q101	I-2	RV13	G-3
DL2	H-2	*IC4	E-2	IC23	A-4	L21	B-6	*Q17	F-2	*Q102	A-6	RV14	F-2
DL3	J-6	*IC5	E-3	*IC24	C-5			*Q18	G-1	Q103	B-6	RV15	D-1
		*IC6	F-5			*Q1	I-6	Q19	G-2	Q104	A-5		
*D1	H-4	*IC7	E-4	LV1	E-4	*Q2	I-5	Q20	G-1	Q105	A-5	S1	H-1
*D2	B-7	*IC8	G-4			Q4	J-2	*Q21	H-2				
*D3	C-1	*IC10	F-3	*L1	G-7	*Q5	J-2	*Q22	H-2	RV1	J-4	TP1	J-3
*D4	C-4	IC11	E-3	*L3	D-6	*Q6	H-4	*Q23	C-6	RV2	J-4	TP2	H-3
D5	F-3	*IC12	C-2	*L4	H-5	*Q7	H-5	*Q24	C-6	RV3	I-4	TP3	H-4
*D6	B-6	*IC13	C-4	*L5	G-5	*Q8	E-2	Q25	B-6	RV4	I-4	TP4	G-2
		IC14	E-3	L6	F-5	*Q9	E-2	*Q26	A-4	RV5	H-4	TP5	E-1
E1	E-7	*IC15	D-3	*L7	E-5	*Q10	F-5	*Q30	H-3	RV6	H-4		
		*IC16	D-2	*L8	A-5	Q11	G-5	*Q31	I-4	RV7	H-3		
FL1	F-2	IC17	E-2	*L10	E-5	Q12	G-5	*Q34	B-4	RV8	F-5		
		IC19	A-4	*L11	E-5	*Q13	F-5	Q35	I-3	RV9	H-5		

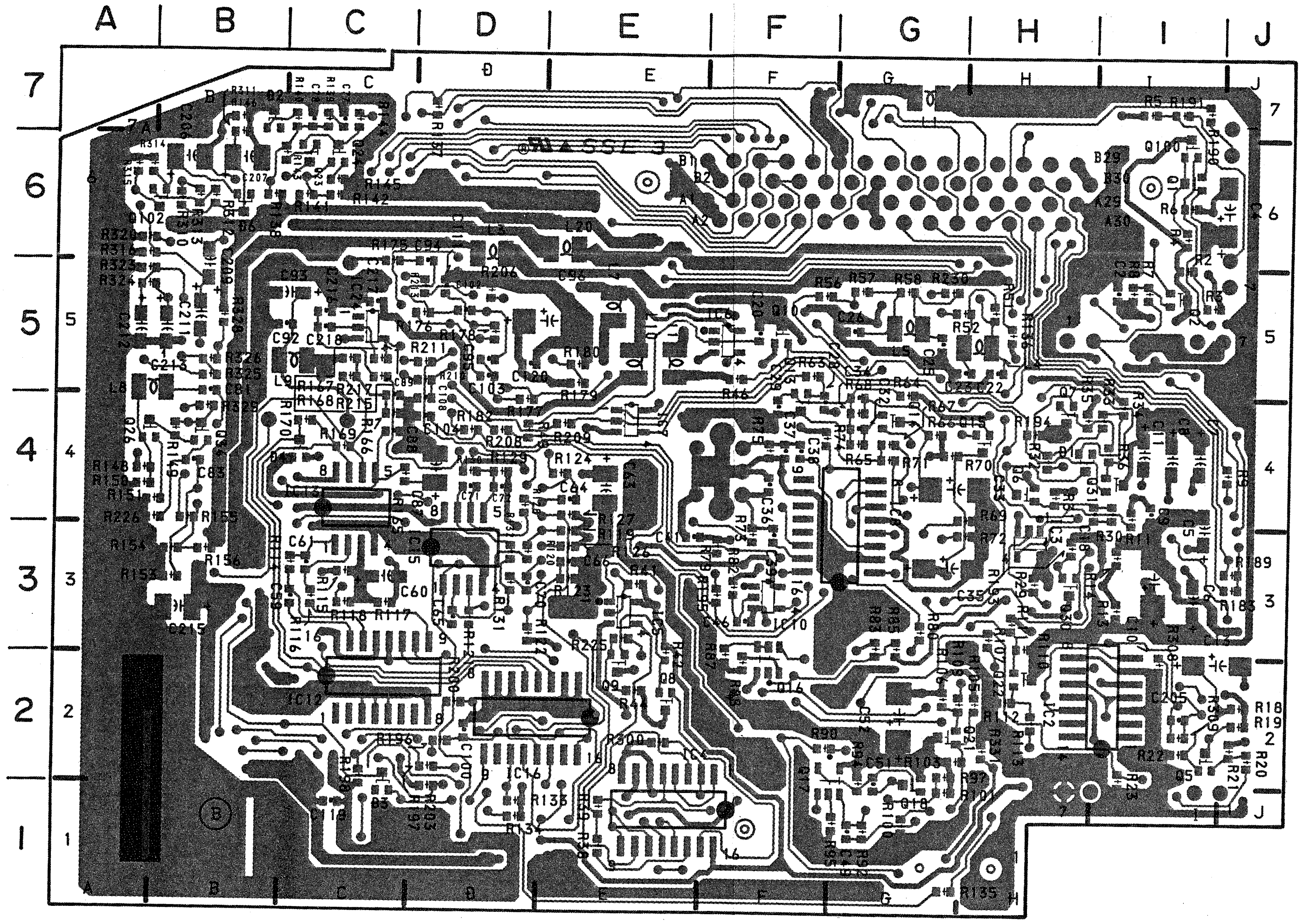
* ; B SIDE

SERIAL No. 11786 and higher (UC)
30521 and higher (J)
42701 and higher (EK)

ES-7(J)/7(UC)/7(P)



ES-7(J)/7(UC)/7(P) -A SIDE-
1-652-336-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)



ES-7(J)/7(UC)/7(P) -B SIDE-
1-652-336-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

ES-7(J)/7(UC)/7(P)(1-652-336-12)

∗; B SIDE

CN1	H-6
DL1	H-5
DL2	H-2
DL3	J-6
∗D1	H-4
∗D2	B-7
∗D3	C-1
∗D4	C-4
D5	F-3
∗D6	B-6
E1	E-7
FL1	F-2
IC1	I-3
∗IC2	H-2
∗IC3	H-3
∗IC4	E-2
∗IC5	E-3
∗IC6	F-5
∗IC7	E-4
∗IC8	G-4
∗IC10	F-3
IC11	E-3
∗IC12	C-2
∗IC13	C-4
IC14	E-3
∗IC15	D-3
∗IC16	D-2
IC17	E-2
IC19	A-4
IC20	C-1
IC21	C-3
IC22	E-5
IC23	A-4
∗IC24	C-5
LV1	E-4
∗L1	G-7
∗L3	D-6
∗L4	H-5
∗L5	G-5
L6	F-5
∗L7	E-5
∗L8	A-5
∗L10	E-5
∗L11	E-5
L12	E-6
L14	B-1
∗L20	E-6
L21	B-6
∗Q1	I-6
∗Q2	I-5
Q4	J-2
∗Q5	J-2
∗Q6	H-4
∗Q7	H-5
∗Q8	E-2
∗Q9	E-2
∗Q10	F-5
Q11	G-5
Q12	G-5
∗Q13	F-5
∗Q14	G-4
∗Q15	H-4
∗Q16	F-2
∗Q17	F-2
∗Q18	G-1
Q19	G-2
Q20	G-1
∗Q21	H-2
∗Q22	H-2
∗Q23	C-6
∗Q24	C-6
Q25	B-6
∗Q26	A-4
∗Q30	H-3
∗Q31	I-4
∗Q34	B-4
Q35	I-3
Q36	I-2
∗Q100	I-6
Q101	I-2
∗Q102	A-6
Q103	B-6
Q104	A-5
Q105	A-5
RV1	J-4
RV2	J-4
RV3	I-4
RV4	I-4
RV5	H-4
RV6	H-4
RV7	H-3
RV8	F-5
RV9	H-5
RV10	G-5
RV12	G-4
RV13	G-3
RV14	F-2
RV15	D-1
S1	H-1
TP1	J-3
TP2	H-3
TP3	H-4
TP4	G-2
TP5	E-1

∗; B SIDE

ES-7(J)/7(UC)/7(P)(1-652-336-12)

∗; B SIDE

CN1	H-6
DL1	H-5
DL2	H-2
DL3	J-6
∗D1	H-4
∗D2	B-7
∗D3	C-1
∗D4	C-4
D5	F-3
∗D6	B-6
E1	E-7
FL1	F-2
IC1	I-3
∗IC2	H-2
∗IC3	H-3
∗IC4	E-2
∗IC5	E-3
∗IC6	F-5
∗IC7	E-4
∗IC8	G-4
∗IC10	F-3
IC11	E-3
∗IC12	C-2
∗IC13	C-4
IC14	E-3
∗IC15	D-3
∗IC16	D-2
IC17	E-2
IC19	A-4
IC20	C-1
IC21	C-3
IC22	E-5
IC23	A-4
∗IC24	C-5
LV1	E-4
∗L1	G-7
∗L3	D-6
∗L4	H-5
∗L5	G-5
L6	F-5
∗L7	E-5
∗L8	A-5
∗L10	E-5
∗L11	E-5
L12	E-6
L14	B-1
∗L20	E-6
L21	B-6
∗Q1	I-6
∗Q2	I-5
Q4	J-2
∗Q5	J-2
∗Q6	H-4
∗Q7	H-5
∗Q8	E-2
∗Q9	E-2
∗Q10	F-5
Q11	G-5
Q12	G-5
∗Q13	F-5
∗Q14	G-4
∗Q15	H-4
∗Q16	F-2
∗Q17	F-2
∗Q18	G-1
Q19	G-2
Q20	G-1
∗Q21	H-2
∗Q22	H-2
∗Q23	C-6
∗Q24	C-6
Q25	B-6
∗Q26	A-4
∗Q30	H-3
∗Q31	I-4
∗Q34	B-4
Q35	I-3
Q36	I-2
∗Q100	I-6
Q101	I-2
∗Q102	A-6
Q103	B-6
Q104	A-5
Q105	A-5
RV1	J-4
RV2	J-4
RV3	I-4
RV4	I-4
RV5	H-4
RV6	H-4
RV7	H-3
RV8	F-5
RV9	H-5
RV10	G-5
RV12	G-4
RV13	G-3
RV14	F-2
RV15	D-1
S1	H-1
TP1	J-3
TP2	H-3
TP3	H-4
TP4	G-2
TP5	E-1

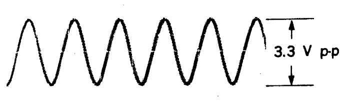
∗; B SIDE

CHROMA ENCODER
SYNC GENERATOR

注意：
1. DC電圧はデジタル電圧計による値。
   No Mark : BARS side
2. 波形写真，およびDC電圧は下記条件での測定。
   - グレースケールチャートを撮像し，波形モニターにて，ビデオ出力の白レベルが100IREになるようにレンズ絞りをセットする。
   - OUTPUT　: CAM
   - GAIN　: 0dB
   - WHITE BAL : PRE
   - SHUTTER　: OFF

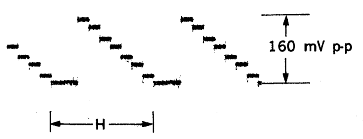
NOTE :
1. All voltage are DC. measured with a digital voltmeter.
   No Mark : BARS side
2. All waveforms are taken and DC voltage is measured in condition below.
   - Shoot the grayscale chart. Adjust lens iris so that a white level is 100IRE for NTSC or 700 mV for PAL on the waveform monitor.
   - OUTPUT　: CAM
   - GAIN　: 0dB
   - WHITE BAL : PRE
   - SHUTTER　: OFF

① CN1-B6　BARS side
4FSC

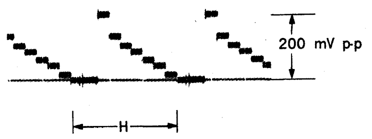


14.3 MHz (NTSC)　17.7 MHz (PAL)

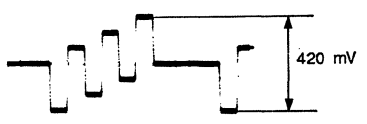
② CN1-B24　BARS side
Y VIDEO (for NTSC)



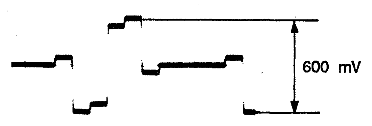
② CN1-B24　BARS side
Y VIDEO (for PAL)



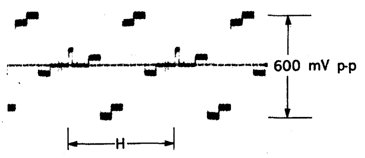
③ CN1-B16　BARS side
B-Y VIDEO



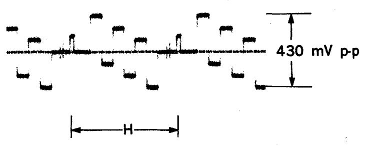
④ CN1-B17　BARS side
R-Y VIDEO



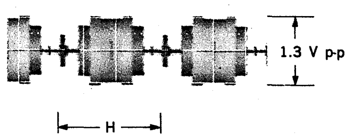
⑤ TP2　BARS side
R-Y VIDEO



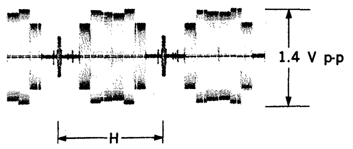
⑥ TP3　BARS side
B-Y VIDEO



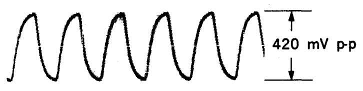
⑦ TP4　BARS side
CHROMA (for NTSC)



⑦ TP4　BARS side
CHROMA (for PAL)

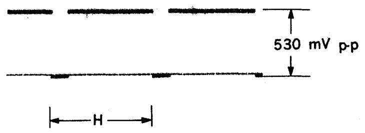


⑧ TP5　BARS side
FSC

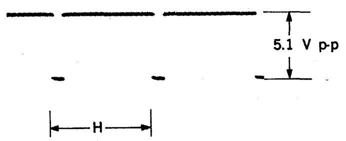


3.58 MHz (NTSC)　4.43 MHz (PAL)

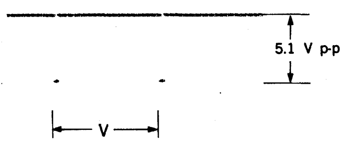
⑨ CN1-B9　CAM/BARS
BLKG



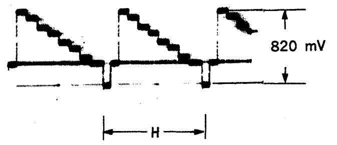
⑩ CN1-A8　CAM/BARS
HD



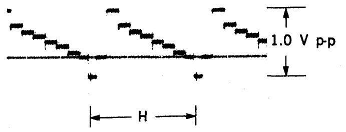
⑪ CN1-B3　CAM/BARS
VD



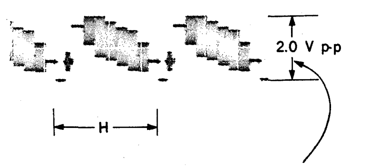
⑫ CN1-A18　BARS side
Y VIDEO (for NTSC)



⑫ CN1-A18　BARS side
Y VIDEO (for PAL)

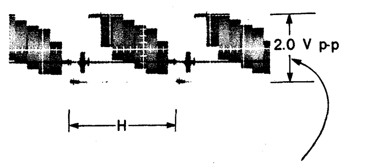


⑬ CN1-A15　BARS side
VBS (for NTSC)



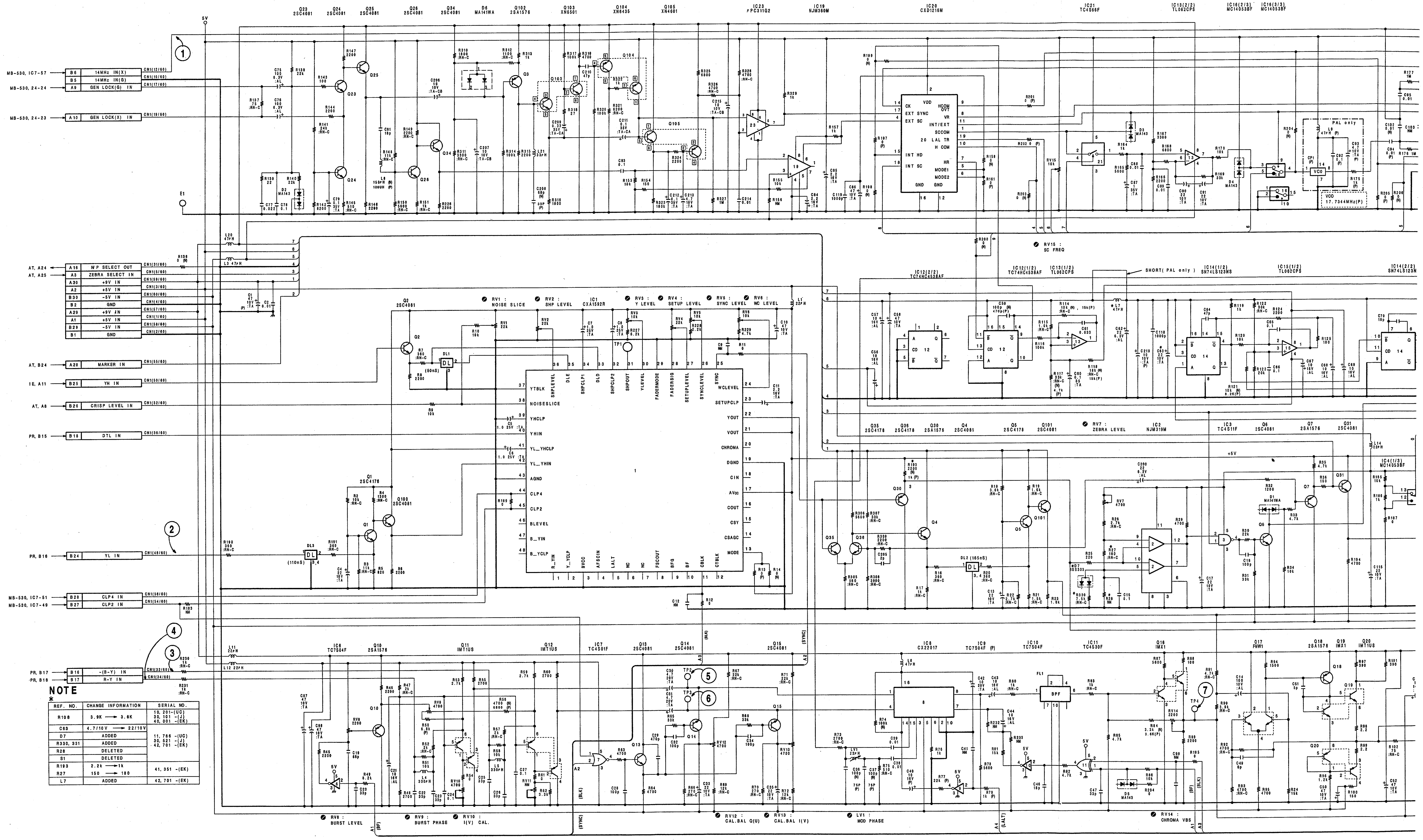
- 75Ω 終端なし
- without 75 Ω termination

⑬ CN1-A15　BARS side
VBS (for PAL)



- 75Ω 終端なし
- without 75 Ω termination

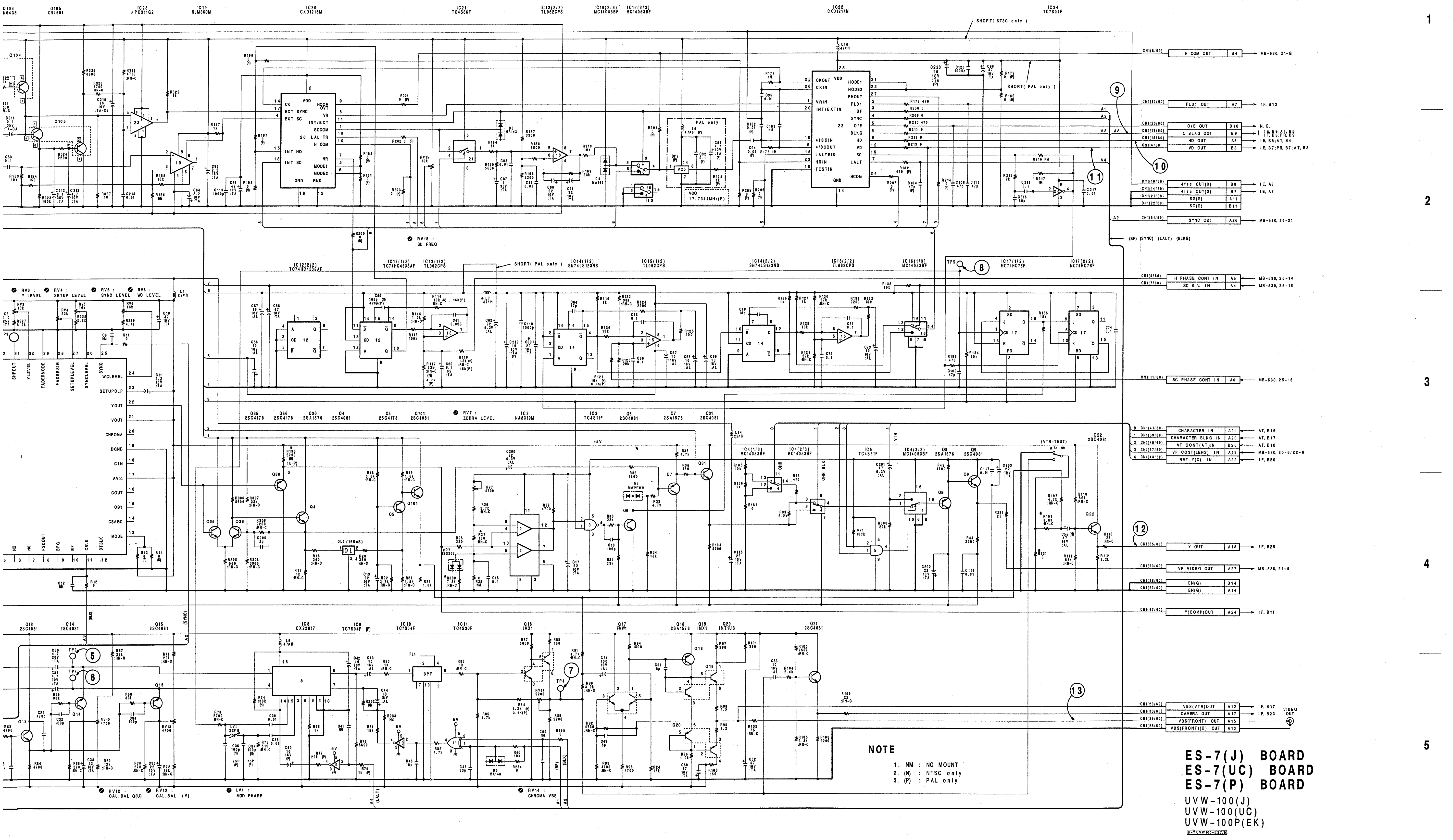
CHROMA ENCODER
SYNC GENERATOR


MB-530, IC7-57
MB-530, 24-24
MB-530, 24-23
B6 14MHz IN(X) CN1(12/60)
B5 14MHz IN(G) CN1(10/60)
A9 GEN LOCK(G) IN CN1(17/60)
A10 GEN LOCK(X) IN CN1(19/60)
5V
E1
①
AT, A24
AT, A25
A16 N/P SELECT OUT CN1(31/60)
A3 ZEBRA SELECT IN CN1(5/60)
A30 +9V IN CN1(59/60)
A2 +5V IN CN1(3/60)
B30 -5V IN CN1(60/60)
B2 GND CN1(4/60)
A29 +9V IN CN1(57/60)
A1 +5V IN CN1(1/60)
B29 -5V IN CN1(58/60)
B1 GND CN1(2/60)
AT, B24
A28 MARKER IN CN1(55/60)
IE, A11
B25 YH IN CN1(50/60)
AT, A8
B26 CRISP LEVEL IN CN1(52/60)
PR, B15
B18 DTL IN CN1(36/60)
②
PR, B16
B24 YL IN CN1(48/60)
MB-530, IC7-51
MB-530, IC7-49
B28 CLP4 IN CN1(56/60)
B27 CLP2 IN CN1(54/60)
R183 NM
④
③
PR, B17
PR, B18
B16 -(B-Y) IN CN1(32/60)
B17 R-Y IN CN1(34/60)
R230 1k :RN-C
R231 1k :RN-C
Q23 2SC4081
Q24 2SC4081
Q25 2SC4081
Q26 2SC4081
Q34 2SC4081
D6 MA141WA
Q102 2SA1576
Q103 XN6501
Q104 XN6435
Q105 XN4601
IC23 μPC311G2
IC19 NJM360M
IC20 CXD1216M
IC21 TC4S66F
IC13(2/2) TL062CPS
IC16(2/3) MC14053BF
IC16(3/3) MC14053BF
PAL only
VCO
17.7344MHz(P)
RV15 : SC FREQ
SHORT(PAL only)
IC12(2/2) TC74HC4538AF
IC12(1/2) TC74HC4538AF
IC13(1/2) TL062CPS
IC14(1/2) SN74LS123NS
IC15(1/2) TL062CPS
IC14(2/2) SN74LS123N
Q2 2SC4081
RV1 : NOISE SLICE
RV2 : SHP LEVEL
IC1 CXA1592R
RV3 : Y LEVEL
RV4 : SETUP LEVEL
RV5 : SYNC LEVEL
RV6 : WC LEVEL
TP1
DL1
(50nS)
YTBLK
NOISESLICE
YHCLP
YHIN
YL_YHCLP
YL_YHIN
AGND
CLP4
CLP2
BLEVEL
B_YIN
B_YCLP
SHPLEVEL
DLE
SHPCLP1
DLO
SHPCLP2
SHPOUT
YLEVEL
FADERMODE
FADERSIG
SETUPLEVEL
SYNCLEVEL
SYNC
WCLEVEL
SETUPCLP
YOUT
VOUT
CHROMA
DGND
CIN
AVcc
COUT
CSY
CSAGC
MODE
R_YIN
R_YCLP
BVCC
AFSCIN
LALT
NC
FSCOUT
BFG
BF
CBLK
CYBLK
Q1 2SC4178
Q100 2SC4081
DL3
(110nS)
Q35 2SC4178
Q36 2SC4178
Q30 2SA1576
Q4 2SC4081
Q5 2SC4178
Q101 2SC4081
RV7 : ZEBRA LEVEL
IC2 NJM319M
IC3 TC4S11F
Q6 2SC4081
Q7 2SA1576
Q31 2SC4081
IC4(1/3) MC14053BF
+5V
DL2 (165nS)
IC6 TC7S04F
Q10 2SA1576
Q11 IMT1US
Q12 IMT1US
IC7 TC4S01F
Q13 2SC4081
Q14 2SC4081
Q15 2SC4081
TP2 ⑤
TP3 ⑥
IC8 CX22017
IC9 TC7S04F (P)
IC10 TC7S04F
IC11 TC4S30F
Q16 IMX1
Q17 FMW1
Q18 2SA1576
Q19 IMX1
Q20 IMT1US
FL1 BPF
TP4 ⑦
LV1
RV8 : BURST LEVEL
RV9 : BURST PHASE
RV10 : I(V) CAL.
RV12 : CAL.BAL Q(U)
RV13 : CAL.BAL I(V)
LV1 : MOD PHASE
RV14 : CHROMA VBS
(SYNC)
(BLK)
(BF)
(LALT)
A1
A2
A3
A4
5V

NOTE

*

REF. NO.	CHANGE INFORMATION	SERIAL NO.
R108	3.9K → 3.6K	10, 201-(UC) 30, 101 -(J) 40, 001 -(EK)
C63	4.7/10V → 22/10V	11, 786 -(UC) 30, 521 -(J) 42, 701 -(EK)
D7	ADDED	
R330, 331	ADDED	
R28	DELETED	
S1	DELETED	
R193 R27	2.2k → 1k 150 → 180	41, 351 -(EK)
L7	ADDED	42, 701 -(EK)

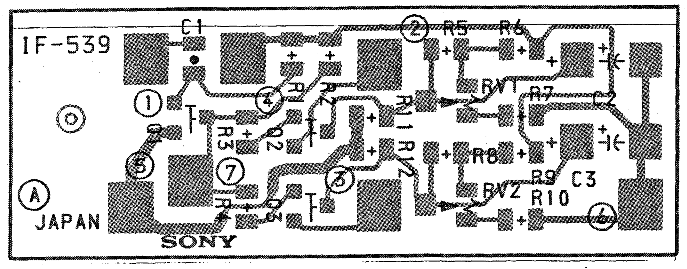

Q104 XN6435
Q105 XN4601
IC23 FPC311G2
IC19 NJM360M
IC20 CXD1216M
IC21 TC4S66F
IC13(2/2) TL062CPS
IC16(2/3) MC14053BF
IC16(3/3) MC14053BF
IC22 CXD1217M
IC24 TC7S04F
SHORT(NTSC only)
SHORT(PAL only)
PAL only
VCO
VCO 17.7344MHz(P)
RV15 : SC FREQ
IC12(2/2) TC74HC4538AF
IC12(1/2) TC74HC4538AF
IC13(1/2) TL062CPS
SHORT(PAL only)
IC14(1/2) SN74LS123NS
IC15(1/2) TL062CPS
IC14(2/2) SN74LS123NS
IC15(2/2) TL062CPS
IC16(1/3) MC14053BF
IC17(1/2) MC74HC76F
IC17(2/2) MC74HC76F
TP5
RV3 : Y LEVEL
RV4 : SETUP LEVEL
RV5 : SYNC LEVEL
RV6 : WC LEVEL
SHPOUT
YLEVEL
FADERMODE
FADERSIG
SETUPLEVEL
SYNCLEVEL
SYNC
WCLEVEL
SETUPCLP
YOUT
VOUT
CHROMA
DGND
CIN
AVcc
COUT
CSY
CSAGC
MODE
NC
FSCOUT
BFG
BF
CTBLK
Q35 2SC4178
Q36 2SC4178
Q30 2SA1576
Q4 2SC4081
Q5 2SC4178
Q101 2SC4081
RV7 : ZEBRA LEVEL
IC2 NJM319M
IC3 TC4S11F
Q6 2SC4081
Q7 2SA1576
Q31 2SC4081
IC4(1/3) MC14053BF
IC4(2/3) MC14053BF
IC5 TC4S81F
IC4(3/3) MC14053BF
Q8 2SA1576
Q9 2SC4081
Q22 2SC4081
(VTR-TEST)
DL2 (165nS)
DL
+5V
CHR
CHR BLK
VTR
Q13 2SC4081
Q14 2SC4081
Q15 2SC4081
TP2
TP3
IC8 CX22017
IC9 TC7S04F (P)
IC10 TC7S04F
IC11 TC4S30F
FL1
BPF
Q16 IMX1
Q17 FMW1
Q18 2SA1576
Q19 IMX1
Q20 IMT1US
Q21 2SC4081
TP4
RV12 : CAL.BAL Q(U)
RV13 : CAL.BAL I(V)
LV1 : MOD PHASE
RV14 : CHROMA VBS
(LALT)
(SYNC)
(BLK)
CN1(8/60) H COM OUT B4 MB-530, Q1-G
CN1(13/60) FLD1 OUT A7 IF, B13
CN1(20/60) O/E OUT B10 N.C.
CN1(18/60) C BLKG OUT B9 IE, B9;AT, B5 IF, B3;PR, B9
CN1(15/60) HD OUT A8 IE, B8;AT, B4
CN1(6/60) VD OUT B3 IE, B7;PR, B7;AT, B3
CN1(16/60) 4fsc OUT(X) B8 IE, A8
CN1(14/60) 4fsc OUT(G) B7 IE, A7
CN1(21/60) SG(G) A11
CN1(22/60) SG(G) B11
CN1(51/60) SYNC OUT A26 MB-530, 24-21
(BF) (SYNC) (LALT) (BLKG)
CN1(9/60) H PHASE CONT IN A5 MB-530, 25-14
CN1(7/60) SC 0/π IN A4 MB-530, 25-16
CN1(11/60) SC PHASE CONT IN A6 MB-530, 25-15
CN1(41/60) CHARACTER IN A21 AT, B16
CN1(39/60) CHARACTER BLKG IN A20 AT, B17
CN1(40/60) VF CONT(AT)IN B20 AT, B18
CN1(37/60) VF CONT(LENS) IN A19 MB-530, 20-6/22-6
CN1(43/60) RET Y(X) IN A22 IF, B20
CN1(35/60) Y OUT A18 IF, B25
CN1(53/60) VF VIDEO OUT A27 MB-530, 21-6
CN1(28/60) EN(G) B14
CN1(27/60) EN(G) A14
CN1(47/60) Y(COMP)OUT A24 IF, B11
CN1(23/60) VBS(VTR)OUT A12 IF, B17
CN1(33/60) CAMERA OUT A17 IF, B23
CN1(29/60) VBS(FRONT) OUT A15
CN1(25/60) VBS(FRONT)(G) OUT A13
VIDEO OUT
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
1
2
3
4
5

NOTE

1. NM : NO MOUNT
2. (N) : NTSC only
3. (P) : PAL only

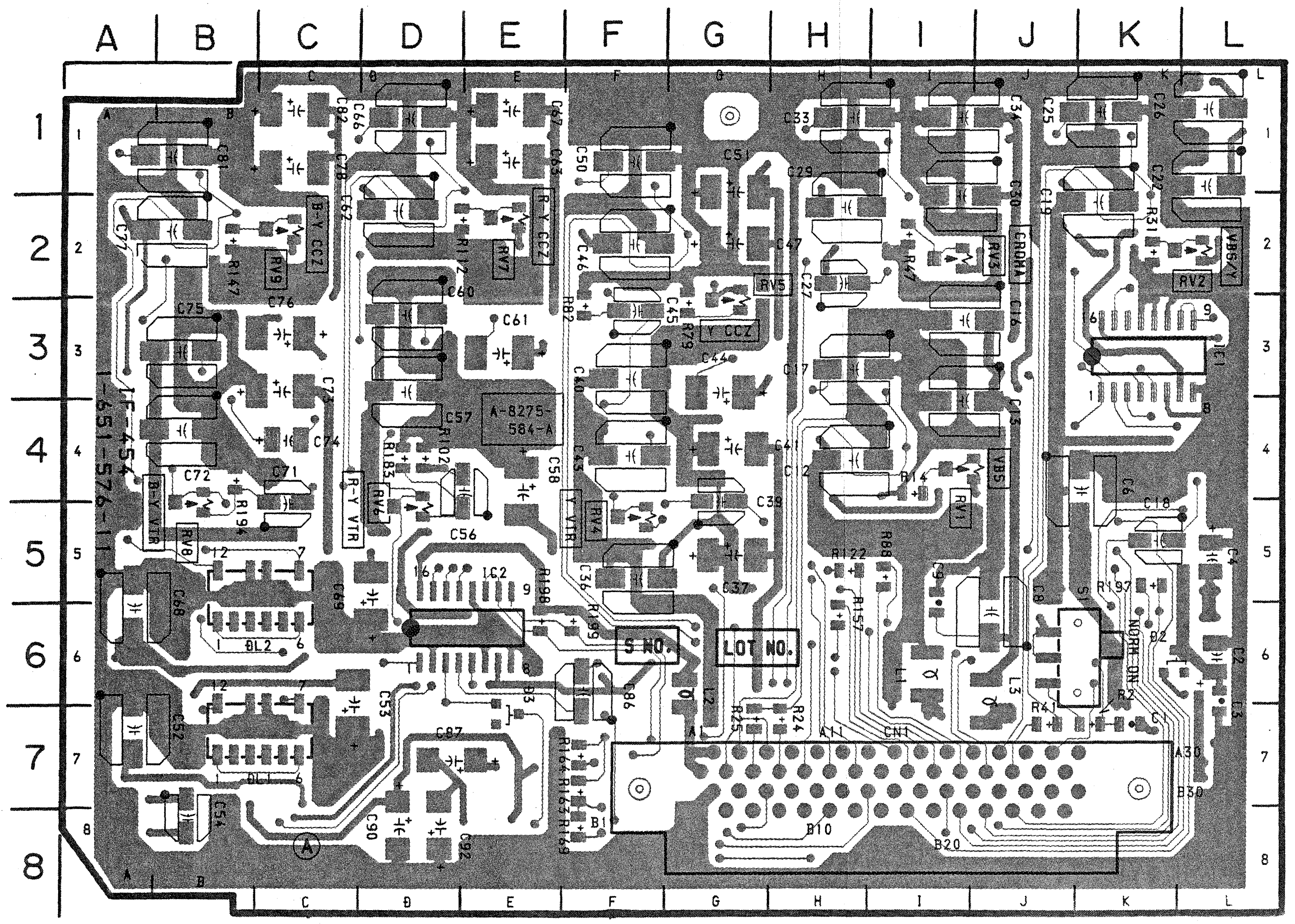
ES-7(J) BOARD
ES-7(UC) BOARD
ES-7(P) BOARD
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)
B-¥UVW100-ES7/M

IF-454 BOARD
IF-539 BOARD

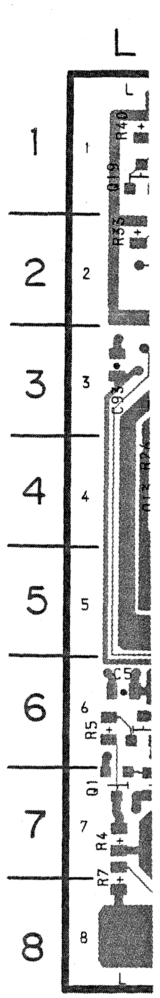

IF-539
C1
R5
R6
RV1
R7
C2
R1
R2
Q2
R3
R11
RV2
R8
R9
C3
R10
D3
R4
①
②
③
④
⑤
⑥
⑦
Ⓐ
JAPAN
SONY

IF-539 -A SIDE-

SERIAL No. 10001-11865 (UC)
30001-30520 (J)
40001-42960 (EK)


A
B
C
D
E
F
G
H
I
J
K
L
1
2
3
4
5
6
7
8
IF-454 1-651-576-11
A-8275-584-A
S NO.
LOT NO.
CN1
IC1
IC2
DL1
DL2
RV1
RV2
RV3
RV4
RV5
RV6
RV7
RV8
RV9
B-Y CCZ
R-Y CCZ
Y CCZ
CROMA
VBS
VBSY
R-Y VIR
B-Y VIR
Y VIR
NORM ON
S1
L1
L2
L3
A1
A30
B1
B10
B20
B30
Ⓐ

IF-454 -A SIDE-
1-651-576-11, -12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)



IF-454(1-651-576-11, -12)

* ; B SIDE

CN1	I-7	*Q1	L-7	*Q17	K-1	*Q33	G-4	*Q51	D-2	*Q68	B-1	RV3	J-2
		*Q2	L-6	*Q18	L-1	*Q35	F-2	*Q52	D-1	*Q69	C-2	RV4	F-5
DL1	B-7	*Q3	J-6	*Q19	L-1	*Q36	F-2	*Q53	E-1	*Q70	C-2	RV5	G-2
DL2	B-6	*Q4	J-4	*Q20	J-1	*Q37	F-2	*Q54	E-1	*Q71	A-1	RV6	D-4
		*Q5	J-5	*Q21	K-1	*Q38	G-2	*Q55	D-1	*Q72	B-1	RV7	E-2
*D1	K-6	*Q6	I-4	*Q22	K-4	*Q39	G-2	*Q56	E-1	*Q73	C-8	RV8	B-5
D2	K-6	*Q7	H-4	*Q23	I-2	*Q40	F-1	*Q57	A-7	*Q74	F-6	RV9	C-2
D3	E-6	*Q8	I-4	*Q24	H-2	*Q41	G-1	*Q58	A-6	*Q75	E-7		
		*Q9	I-4	*Q25	I-1	*Q42	B-7	*Q59	C-6	*Q76	F-8	*S1	K-5
IC1	L-3	*Q10	J-4	*Q26	I-1	*Q43	D-7	*Q60	C-6	*Q77	E-7		
IC2	E-5	*Q11	H-3	*Q27	J-1	*Q44	D-7	*Q61	E-5	*Q78	E-8		
		*Q12	I-3	*Q28	H-1	*Q45	D-6	*Q62	E-5	*Q81	B-5		
L1	I-6	*Q13	L-4	*Q29	I-1	*Q46	D-6	*Q63	C-4	*Q82	C-7		
L2	G-6	*Q14	K-2	*Q30	I-5	*Q47	E-4	*Q64	B-4				
L3	J-6	*Q15	K-1	*Q31	G-5	*Q48	E-4	*Q66	B-2	RV1	I-4		
		*Q16	K-1	*Q32	H-5	*Q50	D-2	*Q67	B-2	RV2	L-2		

* ; B SIDE

IF-454(1

*; B SI

CN1

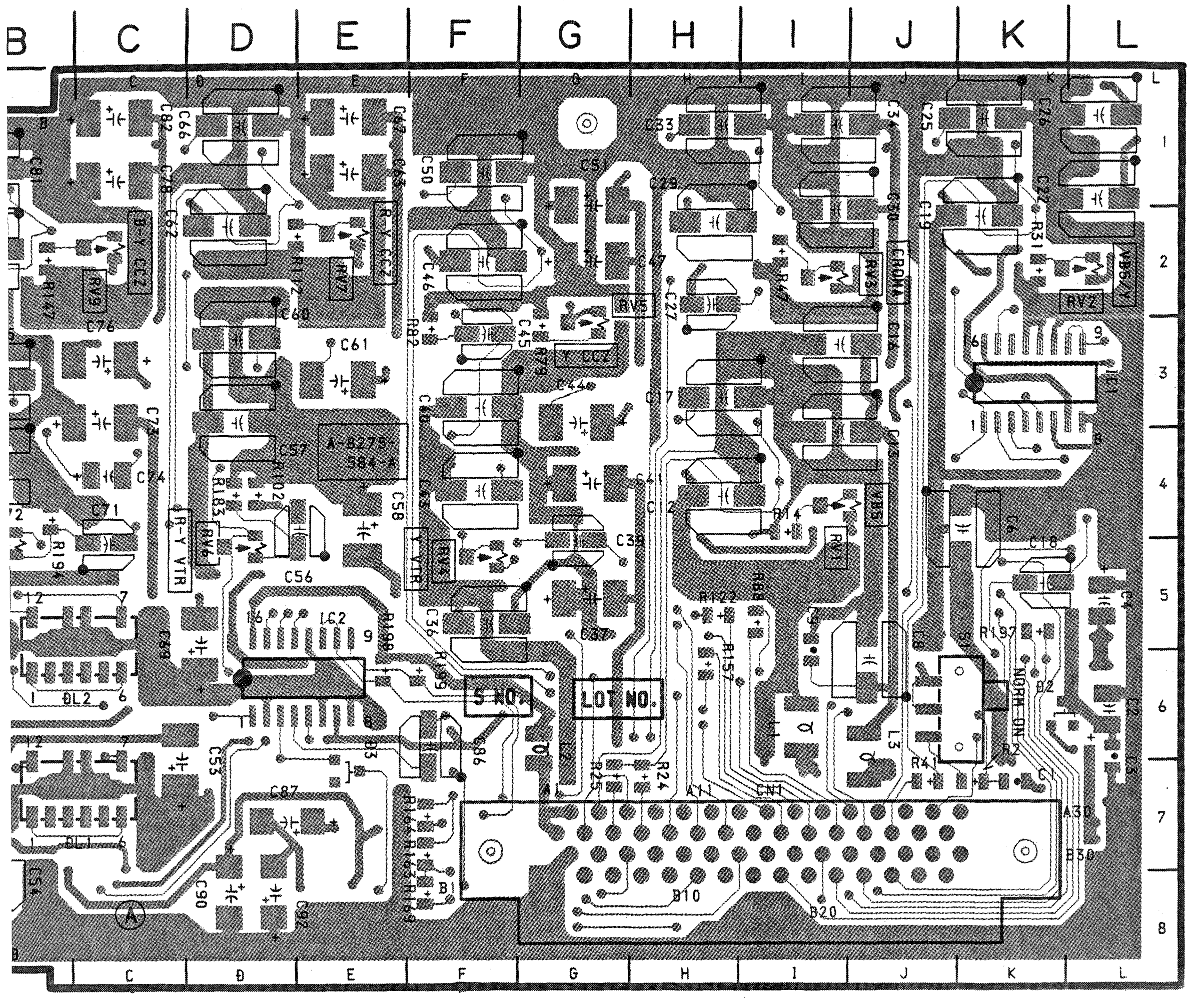
DL1
DL2

*D1
D2
D3

IC1
IC2

L1
L2
L3

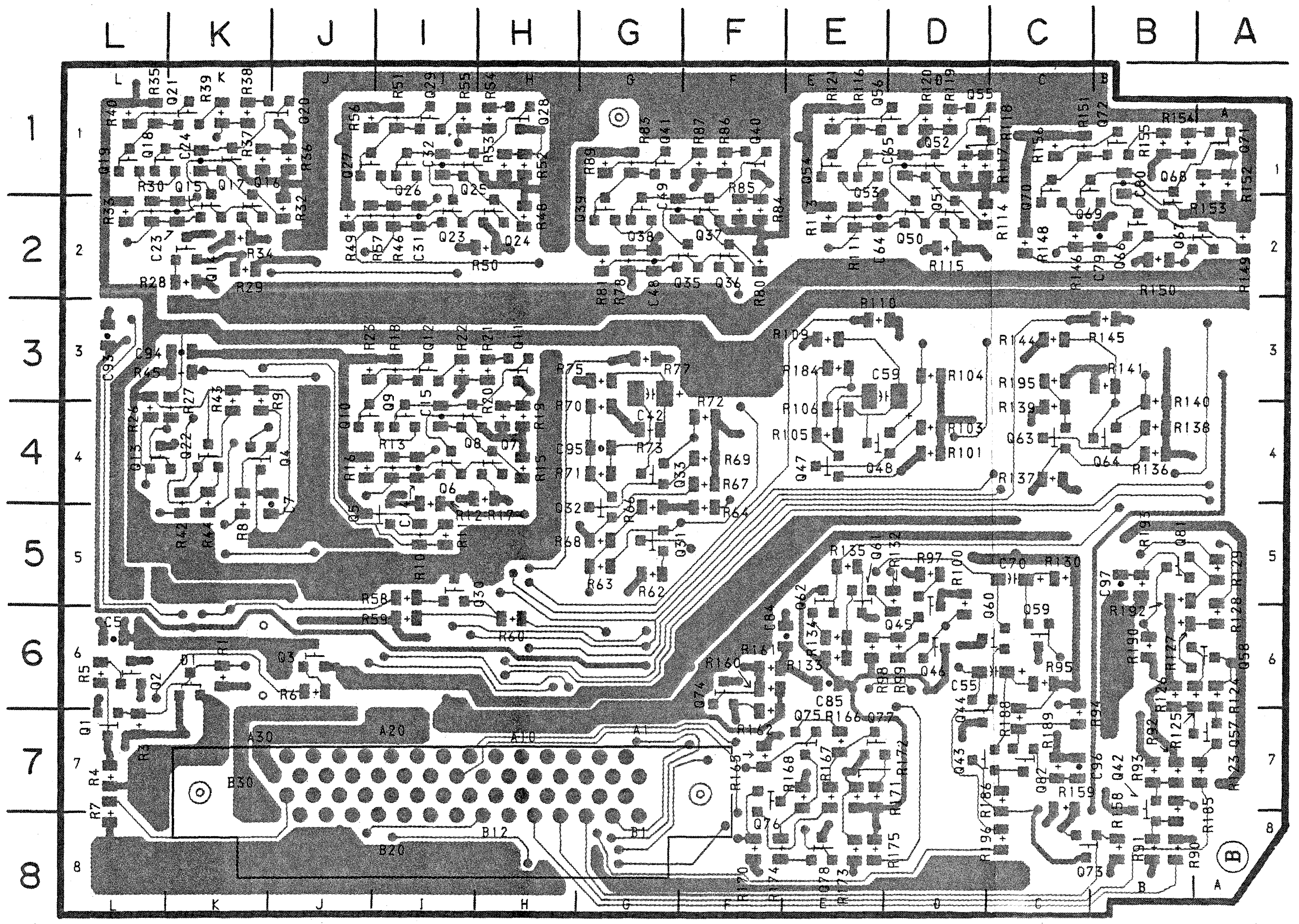
001-11865 (UC)
001-30520 (J)
001-42960 (EK)


B
C
D
E
F
G
H
I
J
K
L
1
2
3
4
5
6
7
8
S NO.
LOT NO.
A-8275-584-A
NORM ON
CHROMA
Y CCZ
R-Y VTR
B-Y VTR
IC1
IC2
CN1
A30
B30
B1
B10
B20
A11
DL1
DL2
A

IF-454 -A SIDE-
1-651-576-11, -12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

576-11, -12)

*Q1	L-7	*Q17	K-1	*Q33	G-4	*Q51	D-2	*Q68	B-1	RV3	J-2
*Q2	L-6	*Q18	L-1	*Q35	F-2	*Q52	D-1	*Q69	C-2	RV4	F-5
*Q3	J-6	*Q19	L-1	*Q36	F-2	*Q53	E-1	*Q70	C-2	RV5	G-2
*Q4	J-4	*Q20	J-1	*Q37	F-2	*Q54	E-1	*Q71	A-1	RV6	D-4
*Q5	J-5	*Q21	K-1	*Q38	G-2	*Q55	D-1	*Q72	B-1	RV7	E-2
*Q6	I-4	*Q22	K-4	*Q39	G-2	*Q56	E-1	*Q73	C-8	RV8	B-5
*Q7	H-4	*Q23	I-2	*Q40	F-1	*Q57	A-7	*Q74	F-6	RV9	C-2
*Q8	I-4	*Q24	H-2	*Q41	G-1	*Q58	A-6	*Q75	E-7		
*Q9	I-4	*Q25	I-1	*Q42	B-7	*Q59	C-6	*Q76	F-8	*S1	K-5
*Q10	J-4	*Q26	I-1	*Q43	D-7	*Q60	C-6	*Q77	E-7		
*Q11	H-3	*Q27	J-1	*Q44	D-7	*Q61	E-5	*Q78	E-8	* ; B SIDE	
*Q12	I-3	*Q28	H-1	*Q45	D-6	*Q62	E-5	*Q81	B-5		
*Q13	L-4	*Q29	I-1	*Q46	D-6	*Q63	C-4	*Q82	C-7		
*Q14	K-2	*Q30	I-5	*Q47	E-4	*Q64	B-4				
*Q15	K-1	*Q31	G-5	*Q48	E-4	*Q66	B-2	RV1	I-4		
*Q16	K-1	*Q32	H-5	*Q50	D-2	*Q67	B-2	RV2	L-2		


L
K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
A30
B30
A20
A10
A1
B1
B12
B20

IF-454 -B SIDE-
1-651-576-11, -12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

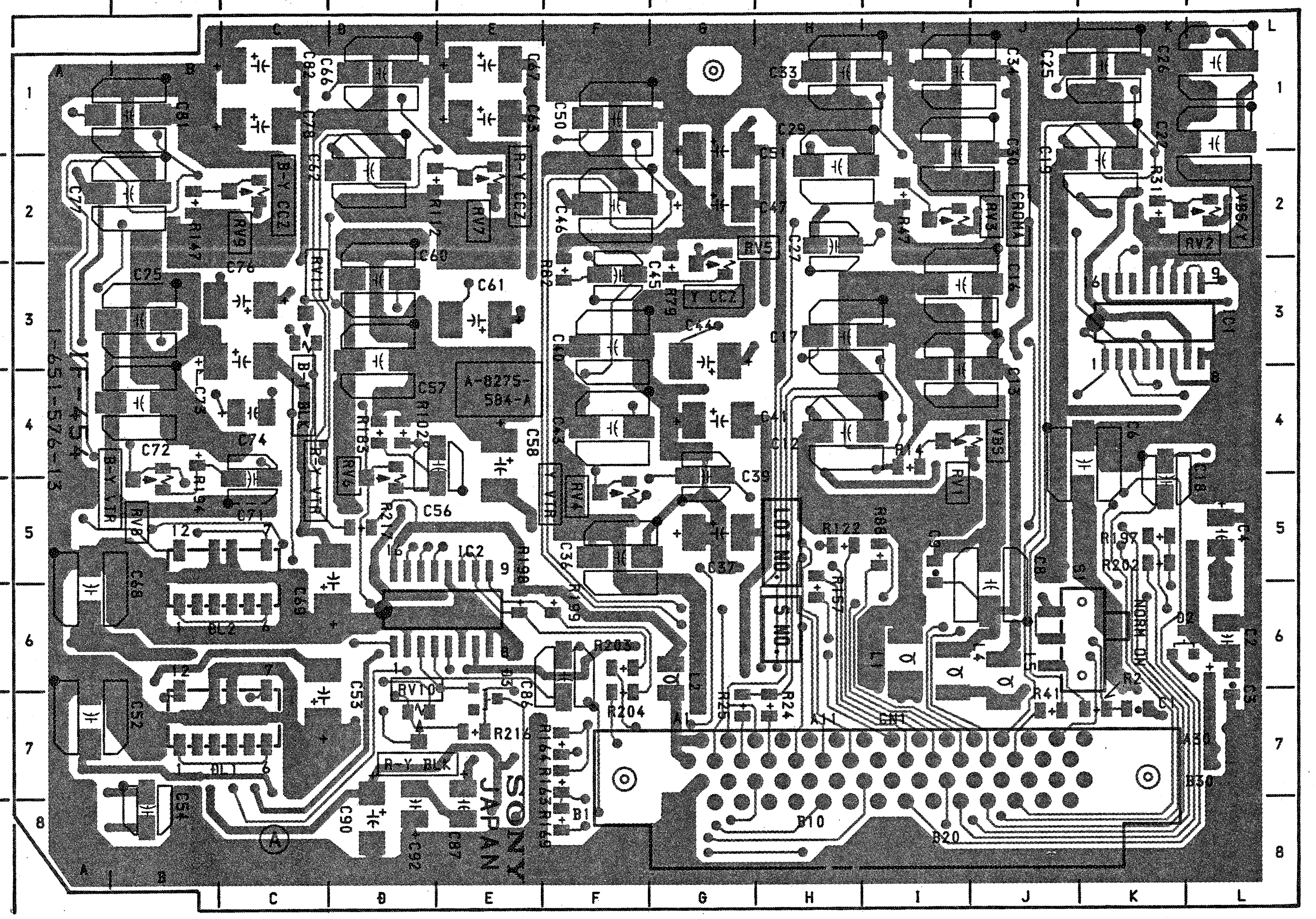
IF-454(1-651-576-11, -12)

* ; B SIDE

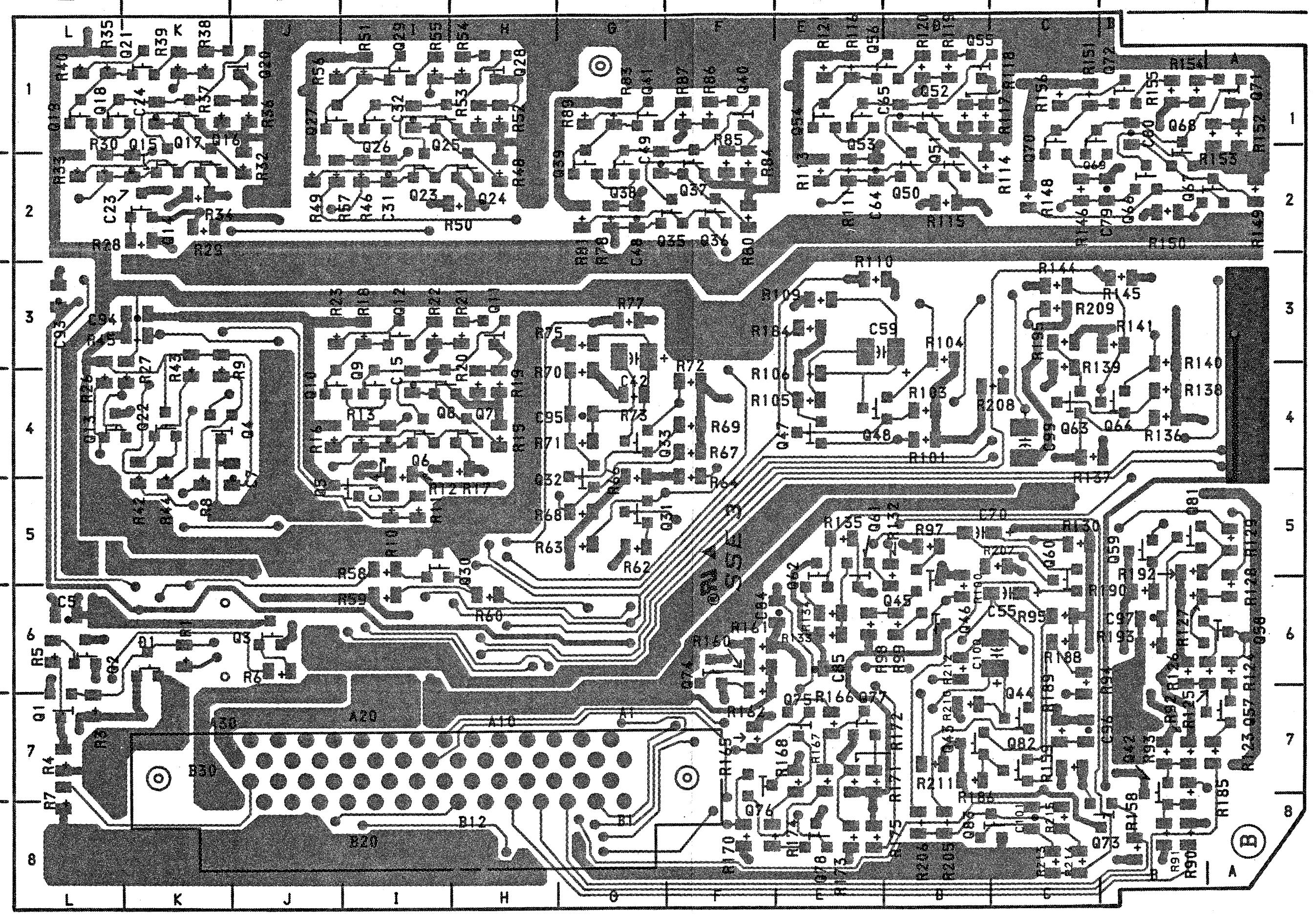
CN1	I-7	*Q1	L-7	*Q17	K-1	*Q33	G-4	*Q51	D-2	*Q68	B-1	RV3	J-2
		*Q2	L-6	*Q18	L-1	*Q35	F-2	*Q52	D-1	*Q69	C-2	RV4	F-5
DL1	B-7	*Q3	J-6	*Q19	L-1	*Q36	F-2	*Q53	E-1	*Q70	C-2	RV5	G-2
DL2	B-6	*Q4	J-4	*Q20	J-1	*Q37	F-2	*Q54	E-1	*Q71	A-1	RV6	D-4
		*Q5	J-5	*Q21	K-1	*Q38	G-2	*Q55	D-1	*Q72	B-1	RV7	E-2
*D1	K-6	*Q6	I-4	*Q22	K-4	*Q39	G-2	*Q56	E-1	*Q73	C-8	RV8	B-5
D2	K-6	*Q7	H-4	*Q23	I-2	*Q40	F-1	*Q57	A-7	*Q74	F-6	RV9	C-2
D3	E-6	*Q8	I-4	*Q24	H-2	*Q41	G-1	*Q58	A-6	*Q75	E-7		
		*Q9	I-4	*Q25	I-1	*Q42	B-7	*Q59	C-6	*Q76	F-8	*S1	K-5
IC1	L-3	*Q10	J-4	*Q26	I-1	*Q43	D-7	*Q60	C-6	*Q77	E-7		
IC2	E-5	*Q11	H-3	*Q27	J-1	*Q44	D-7	*Q61	E-5	*Q78	E-8	* ; B SIDE	
		*Q12	I-3	*Q28	H-1	*Q45	D-6	*Q62	E-5	*Q81	B-5		
L1	I-6	*Q13	L-4	*Q29	I-1	*Q46	D-6	*Q63	C-4	*Q82	C-7		
L2	G-6	*Q14	K-2	*Q30	I-5	*Q47	E-4	*Q64	B-4				
L3	J-6	*Q15	K-1	*Q31	G-5	*Q48	E-4	*Q66	B-2	RV1	I-4		
		*Q16	K-1	*Q32	H-5	*Q50	D-2	*Q67	B-2	RV2	L-2		

IF-454 BOARD

SERIAL No. 11866 and higher (UC)
30521 and higher (J)
42961 and higher (EK)



IF-454 -A SIDE-
1-651-576-13
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)



IF-454 -B SIDE-
1-651-576-13
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

IF-454(1-651-576-13)

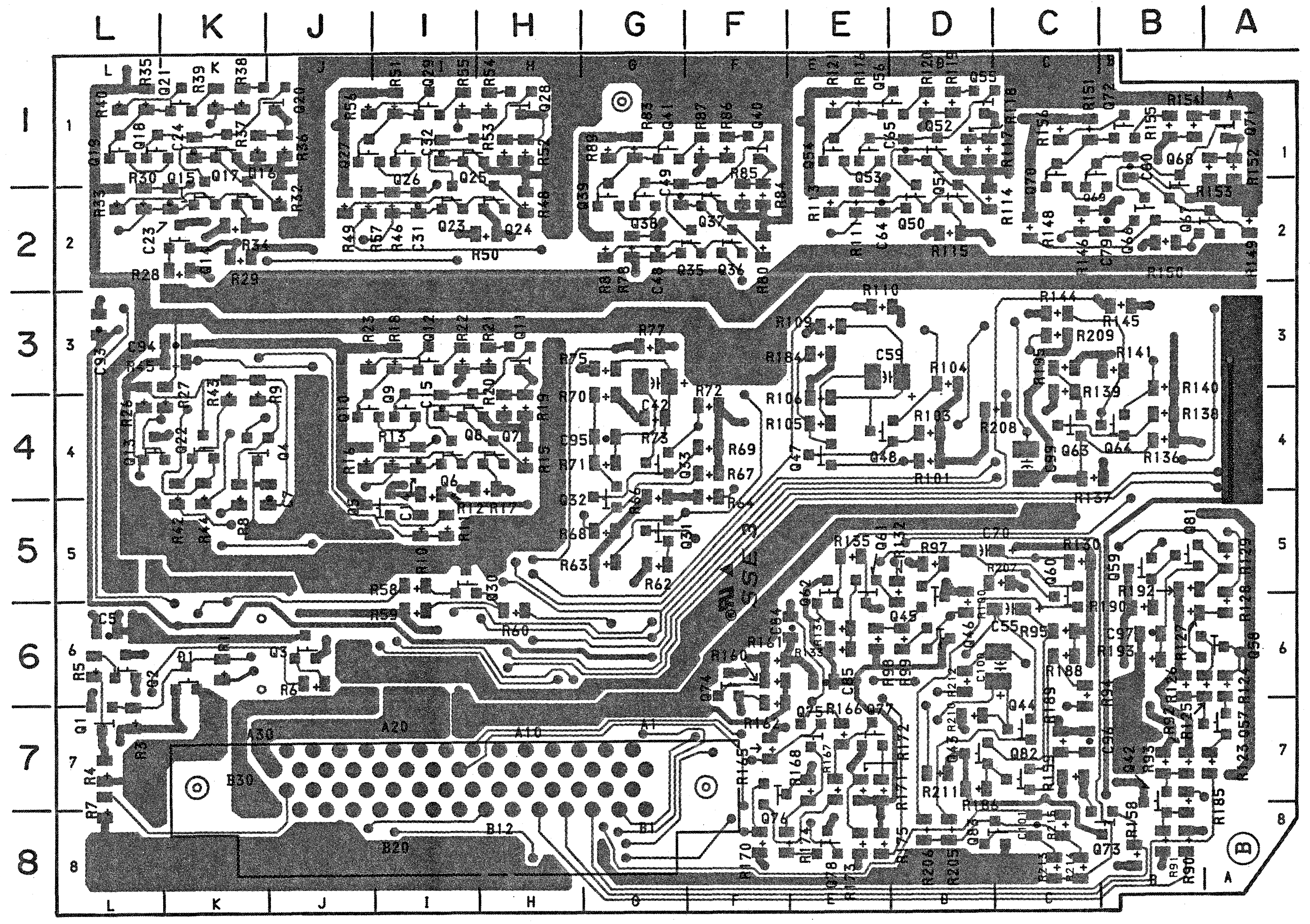
*: B SIDE

CN1	I-7	*Q1	L-7	*Q18	L-1	*Q36	F-2	*Q54	E-1	*Q72	B-1	RV7	E-2
		*Q2	L-6	*Q19	L-1	*Q37	F-2	*Q55	D-1	*Q73	C-8	RV8	B-5
DL1	B-7	*Q3	J-6	*Q20	J-1	*Q38	G-2	*Q56	E-1	*Q74	F-6	RV9	C-2
DL2	B-6	*Q4	J-4	*Q21	K-1	*Q39	G-2	*Q57	A-7	*Q75	E-7	RV10	D-7
		*Q5	J-5	*Q22	K-4	*Q40	F-1	*Q58	A-6	*Q76	F-8	RV11	C-3
*D1	K-6	*Q6	I-4	*Q23	I-2	*Q41	G-1	*Q59	B-5	*Q77	E-7		
D2	K-6	*Q7	H-4	*Q24	H-2	*Q42	B-7	*Q60	C-5	*Q78	E-8	S1	K-5
D3	E-6	*Q8	I-4	*Q25	I-1	*Q43	D-7	*Q61	E-5	*Q81	B-5		
		*Q9	I-4	*Q26	I-1	*Q44	C-7	*Q62	E-5	*Q82	C-7		
IC1	L-3	*Q10	J-4	*Q27	J-1	*Q45	D-6	*Q63	C-4	*Q83	D-8		
IC2	E-5	*Q11	H-3	*Q28	H-1	*Q46	D-6	*Q64	B-4				
		*Q12	I-3	*Q29	I-1	*Q47	E-4	*Q66	B-2	RV1	I-4		
L1	I-6	*Q13	L-4	*Q30	I-5	*Q48	E-4	*Q67	B-2	RV2	L-2		
L2	G-6	*Q14	K-2	*Q31	G-5	*Q50	D-2	*Q68	B-1	RV3	J-2		
L4	J-6	*Q15	K-1	*Q32	H-5	*Q51	D-2	*Q69	C-2	RV4	F-5		
L5	J-6	*Q16	K-1	*Q33	G-4	*Q52	D-1	*Q70	C-2	RV5	G-2		
		*Q17	K-1	*Q35	F-2	*Q53	E-1	*Q71	A-1	RV6	D-4		

IF-454(1-651-576-13)

*: B SIDE

CN1	I-7	*Q1	L-7	*Q18	L-1	*Q36	F-2	*Q54	E-1	*Q72	B-1	RV7	E-2
		*Q2	L-6	*Q19	L-1	*Q37	F-2	*Q55	D-1	*Q73	C-8	RV8	B-5
DL1	B-7	*Q3	J-6	*Q20	J-1	*Q38	G-2	*Q56	E-1	*Q74	F-6	RV9	C-2
DL2	B-6	*Q4	J-4	*Q21	K-1	*Q39	G-2	*Q57	A-7	*Q75	E-7	RV10	D-7
		*Q5	J-5	*Q22	K-4	*Q40	F-1	*Q58	A-6	*Q76	F-8	RV11	C-3
*D1	K-6	*Q6	I-4	*Q23	I-2	*Q41	G-1	*Q59	B-5	*Q77	E-7		
D2	K-6	*Q7	H-4	*Q24	H-2	*Q42	B-7	*Q60	C-5	*Q78	E-8	S1	K-5
D3	E-6	*Q8	I-4	*Q25	I-1	*Q43	D-7	*Q61	E-5	*Q81	B-5		
		*Q9	I-4	*Q26	I-1	*Q44	C-7	*Q62	E-5	*Q82	C-7		
IC1	L-3	*Q10	J-4	*Q27	J-1	*Q45	D-6	*Q63	C-4	*Q83	D-8		
IC2	E-5	*Q11	H-3	*Q28	H-1	*Q46	D-6	*Q64	B-4				
		*Q12	I-3	*Q29	I-1	*Q47	E-4	*Q66	B-2	RV1	I-4		
L1	I-6	*Q13	L-4	*Q30	I-5	*Q48	E-4	*Q67	B-2	RV2	L-2		
L2	G-6	*Q14	K-2	*Q31	G-5	*Q50	D-2	*Q68	B-1	RV3	J-2		
L4	J-6	*Q15	K-1	*Q32	H-5	*Q51	D-2	*Q69	C-2	RV4	F-5		
L5	J-6	*Q16	K-1	*Q33	G-4	*Q52	D-1	*Q70	C-2	RV5	G-2		
		*Q17	K-1	*Q35	F-2	*Q53	E-1	*Q71	A-1	RV6	D-4		



IF-454 -B SIDE-

1-651-576-13
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

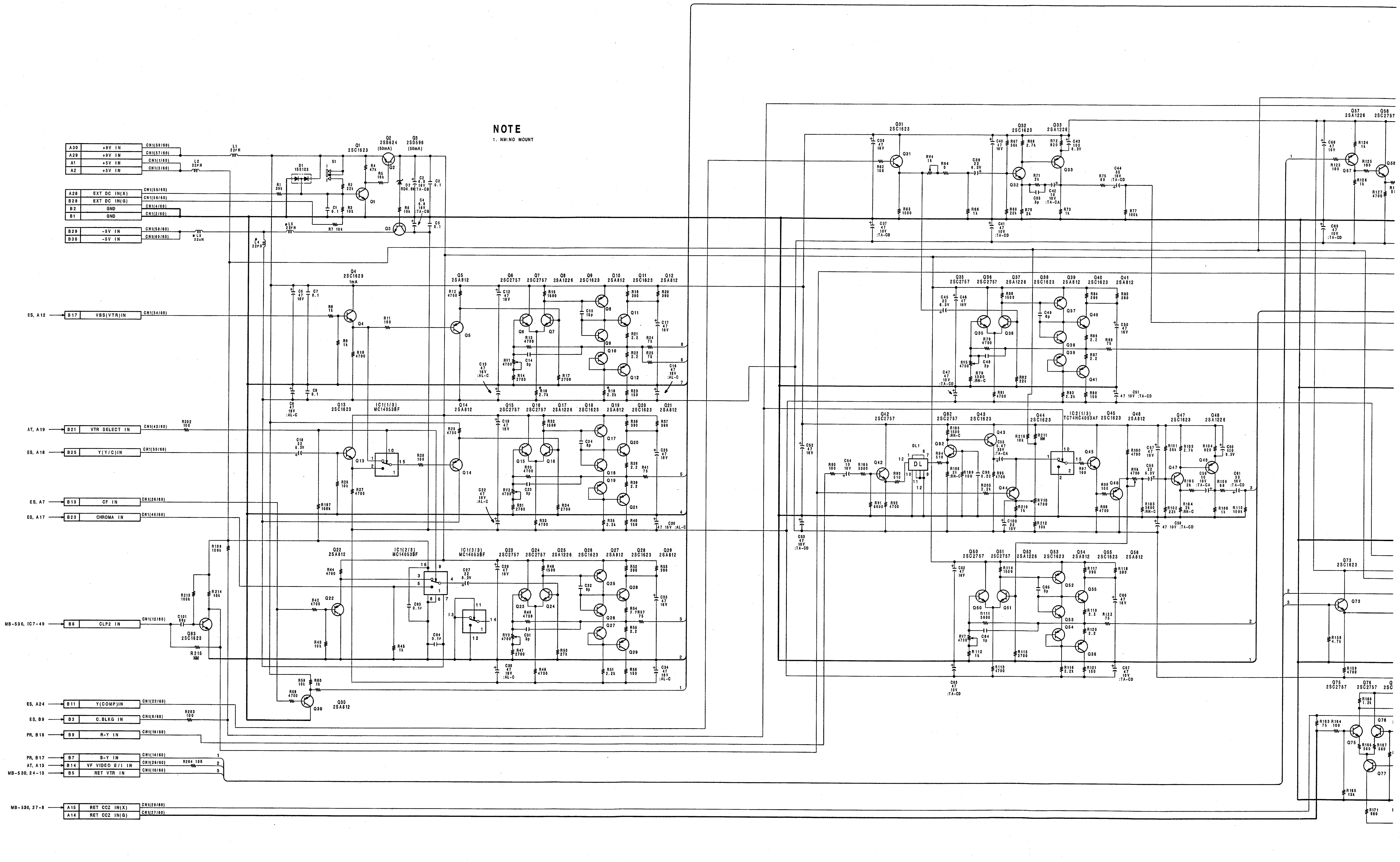
IF-454(1-651-576-13)

*: B SIDE

CN1	I-7	*Q1	L-7	*Q18	L-1	*Q36	F-2	*Q54	E-1	*Q72	B-1	RV7	E-2
		*Q2	L-6	*Q19	L-1	*Q37	F-2	*Q55	D-1	*Q73	C-8	RV8	B-5
DL1	B-7	*Q3	J-6	*Q20	J-1	*Q38	G-2	*Q56	E-1	*Q74	F-6	RV9	C-2
DL2	B-6	*Q4	J-4	*Q21	K-1	*Q39	G-2	*Q57	A-7	*Q75	E-7	RV10	D-7
		*Q5	J-5	*Q22	K-4	*Q40	F-1	*Q58	A-6	*Q76	F-8	RV11	C-3
*D1	K-6	*Q6	I-4	*Q23	I-2	*Q41	G-1	*Q59	B-5	*Q77	E-7		
D2	K-6	*Q7	H-4	*Q24	H-2	*Q42	B-7	*Q60	C-5	*Q78	E-8	S1	K-5
D3	E-6	*Q8	I-4	*Q25	I-1	*Q43	D-7	*Q61	E-5	*Q81	B-5		
		*Q9	I-4	*Q26	I-1	*Q44	C-7	*Q62	E-5	*Q82	C-7		
IC1	L-3	*Q10	J-4	*Q27	J-1	*Q45	D-6	*Q63	C-4	*Q83	D-8		
IC2	E-5	*Q11	H-3	*Q28	H-1	*Q46	D-6	*Q64	B-4				
		*Q12	I-3	*Q29	I-1	*Q47	E-4	*Q66	B-2	RV1	I-4		
L1	I-6	*Q13	L-4	*Q30	I-5	*Q48	E-4	*Q67	B-2	RV2	L-2		
L2	G-6	*Q14	K-2	*Q31	G-5	*Q50	D-2	*Q68	B-1	RV3	J-2		
L4	J-6	*Q15	K-1	*Q32	H-5	*Q51	D-2	*Q69	C-2	RV4	F-5		
L5	J-6	*Q16	K-1	*Q33	G-4	*Q52	D-1	*Q70	C-2	RV5	G-2		
		*Q17	K-1	*Q35	F-2	*Q53	E-1	*Q71	A-1	RV6	D-4		

VTR, 26PIN INTERFACE

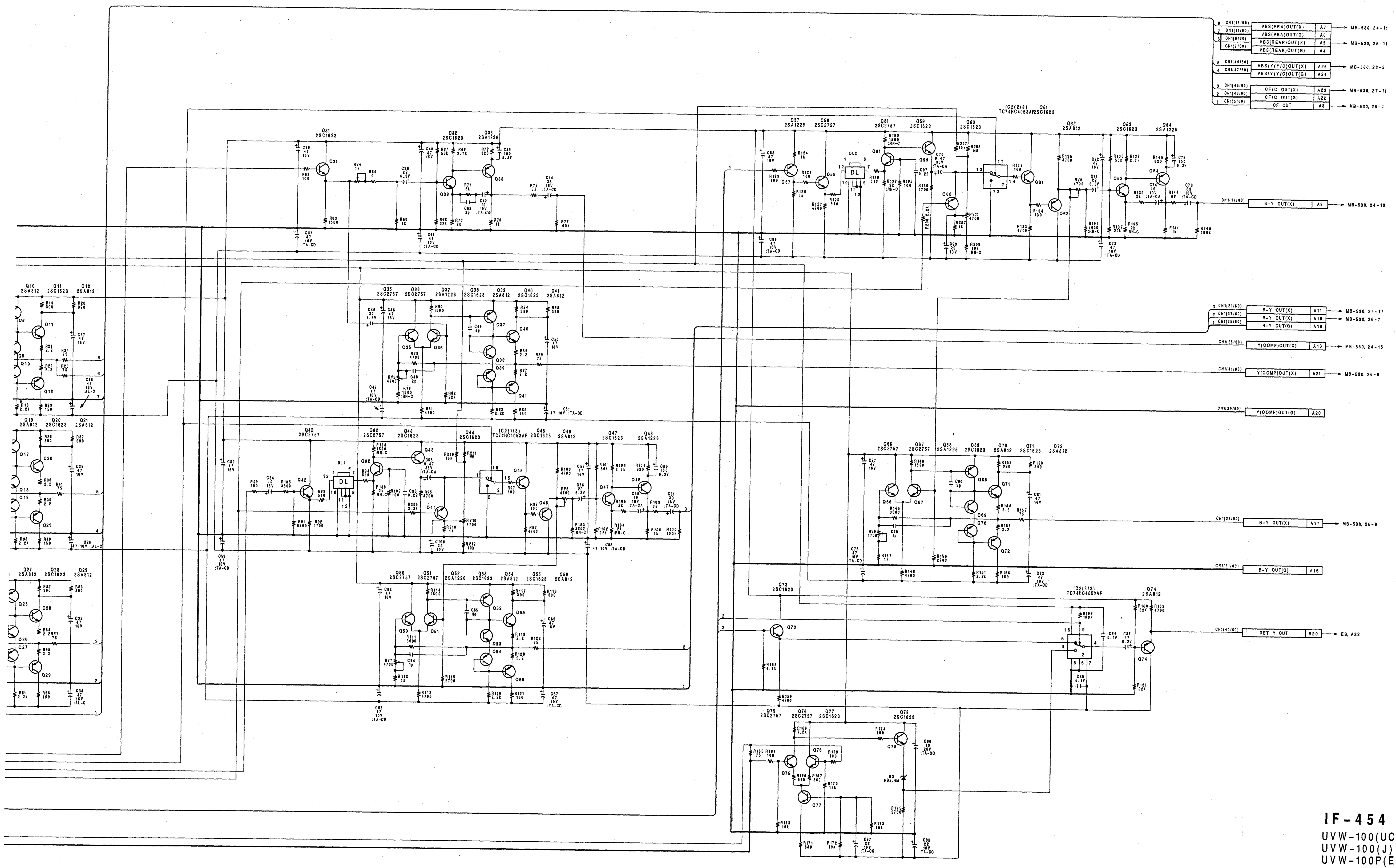
SERIAL No. 11866 and higher (UC)
30521 and higher (J)
42961 and higher (EK)


NOTE
1. NM:NO MOUNT
A30 +9V IN CN1(59/60)
A29 +9V IN CN1(57/60)
A1 +5V IN CN1(1/60)
A2 +5V IN CN1(3/60)
A28 EXT DC IN(X) CN1(55/60)
B28 EXT DC IN(G) CN1(56/60)
B2 GND CN1(4/60)
B1 GND CN1(2/60)
B29 -5V IN CN1(58/60)
B30 -5V IN CN1(60/60)
ES, A12 B17 VBS(VTR)IN CN1(34/60)
AT, A19 B21 VTR SELECT IN CN1(42/60)
ES, A18 B25 Y(Y/C)IN CN1(50/60)
ES, A7 B13 CF IN CN1(26/60)
ES, A17 B23 CHROMA IN CN1(46/60)
MB-530, IC7-49 B6 CLP2 IN CN1(12/60)
ES, A24 B11 Y(COMP)IN CN1(22/60)
ES, B9 B3 C.BLKG IN CN1(6/60)
PR, B18 B9 R-Y IN CN1(18/60)
PR, B17 B7 B-Y IN CN1(14/60)
AT, A13 B14 VF VIDEO E/I IN CN1(28/60)
MB-530, 24-13 B5 RET VTR IN CN1(10/60)
MB-530, 27-8 A15 RET CCZ IN(X) CN1(29/60)
A14 RET CCZ IN(G) CN1(27/60)
L2 22μH
*L3 22uH
Q1 2SC1623
Q2 2SB624 (50mA)
Q3 2SD596 (50mA)
Q4 2SC1623
Q5 2SA812
IC1(1/3) MC14053BF
IC1(2/3) MC14053BF
IC1(3/3) MC14053BF
IC2(1/3) TC74HC4053AF
DL1
Q83 2SC1623
Q30 2SA812

11-14(b)

11-14(b)

A | B | C | D | E | F | G | H


8 CN1(13/60) VBS(PBA)OUT(X) A7 → MB-530, 24-11
7 CN1(11/60) VBS(PBA)OUT(G) A6
6 CN1(9/60) VBS(REAR)OUT(X) A5 → MB-530, 25-11
CN1(7/60) VBS(REAR)OUT(G) A4
5 CN1(49/60) VBS/Y(Y/C)OUT(X) A25 → MB-530, 26-3
4 CN1(47/60) VBS/Y(Y/C)OUT(G) A24
3 CN1(45/60) CF/C OUT(X) A23 → MB-530, 27-11
2 CN1(43/60) CF/C OUT(G) A22
1 CN1(5/60) CF OUT A3 → MB-530, 25-4
CN1(17/60) B-Y OUT(X) A9 → MB-530, 24-19
3 CN1(21/60) R-Y OUT(X) A11 → MB-530, 24-17
2 CN1(37/60) R-Y OUT(X) A19 → MB-530, 26-7
1 CN1(35/60) R-Y OUT(G) A18
CN1(25/60) Y(COMP)OUT(X) A13 → MB-530, 24-15
CN1(41/60) Y(COMP)OUT(X) A21 → MB-530, 26-6
CN1(39/60) Y(COMP)OUT(G) A20
CN1(33/60) B-Y OUT(X) A17 → MB-530, 26-9
CN1(31/60) B-Y OUT(G) A16
CN1(40/60) RET Y OUT B20 → ES, A22
Q31 2SC1623
Q32 2SC1623
Q33 2SA1226
Q57 2SA1226
Q58 2SC2757
Q81 2SC2757
Q59 2SC1623
Q60 2SC1623
IC2(2/3) TC74HC4053AF
Q61 2SC1623
Q62 2SA812
Q63 2SC1623
Q64 2SA1226
DL2
DL1
IC2(1/3) TC74HC4053AF
IC2(3/3) TC74HC4053AF
Q73 2SC1623
Q74 2SA812
Q75 2SC2757
Q76 2SC2757
Q77 2SC1623
Q78 2SC1623
D3 RD5.6M
C75 100 6.3V
C76 33 16V :TA-CD
R141 1k
R145 100k

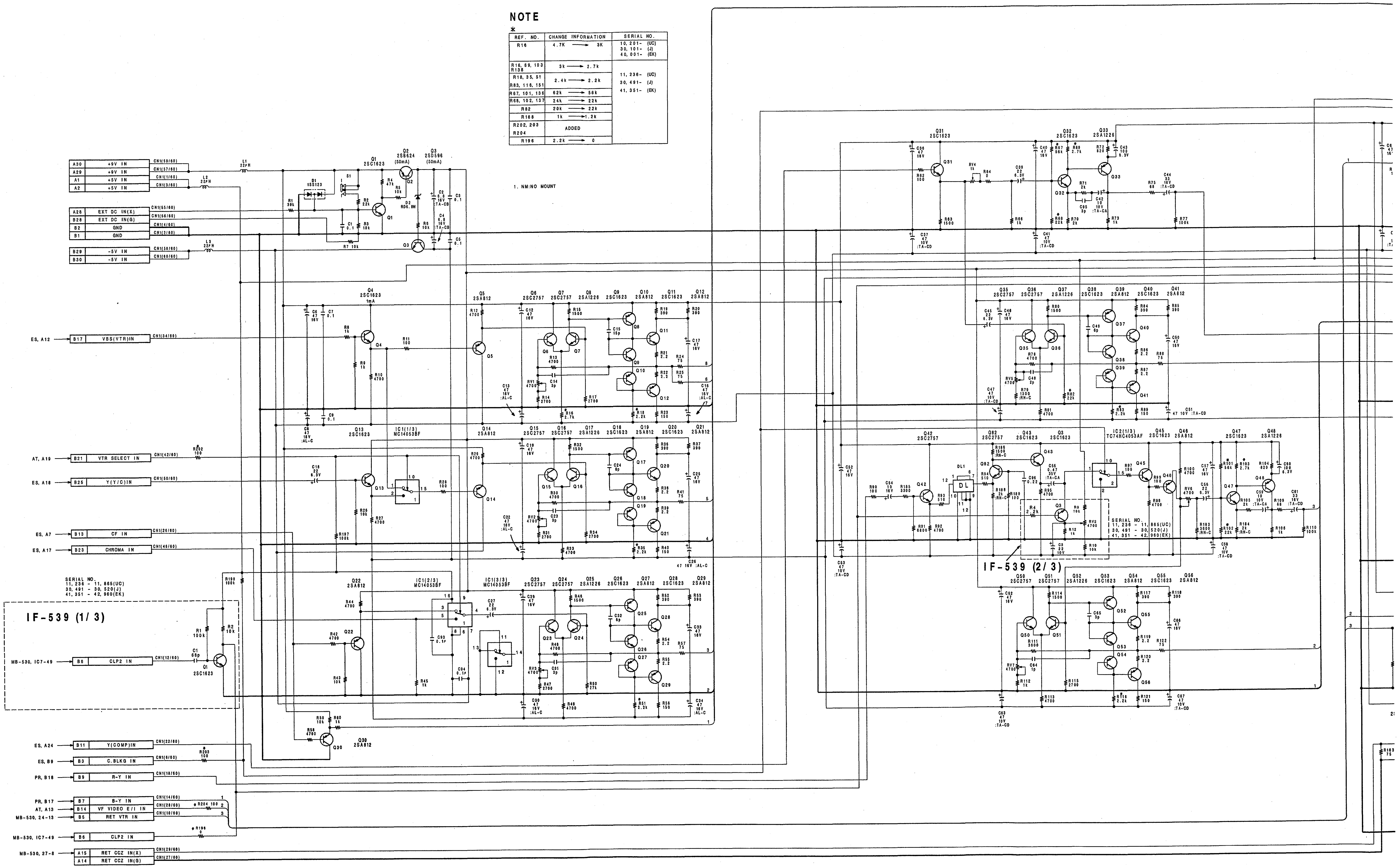
IF-454 BOARD

UVW-100(UC)
UVW-100(J)
UVW-100P(EK)

B-7UVW100-IF454/M-13

VTR, 26PIN INTERFACE

SERIAL No. 10001-11865 (UC)
30001-30520 (J)
40001-42960 (EK)

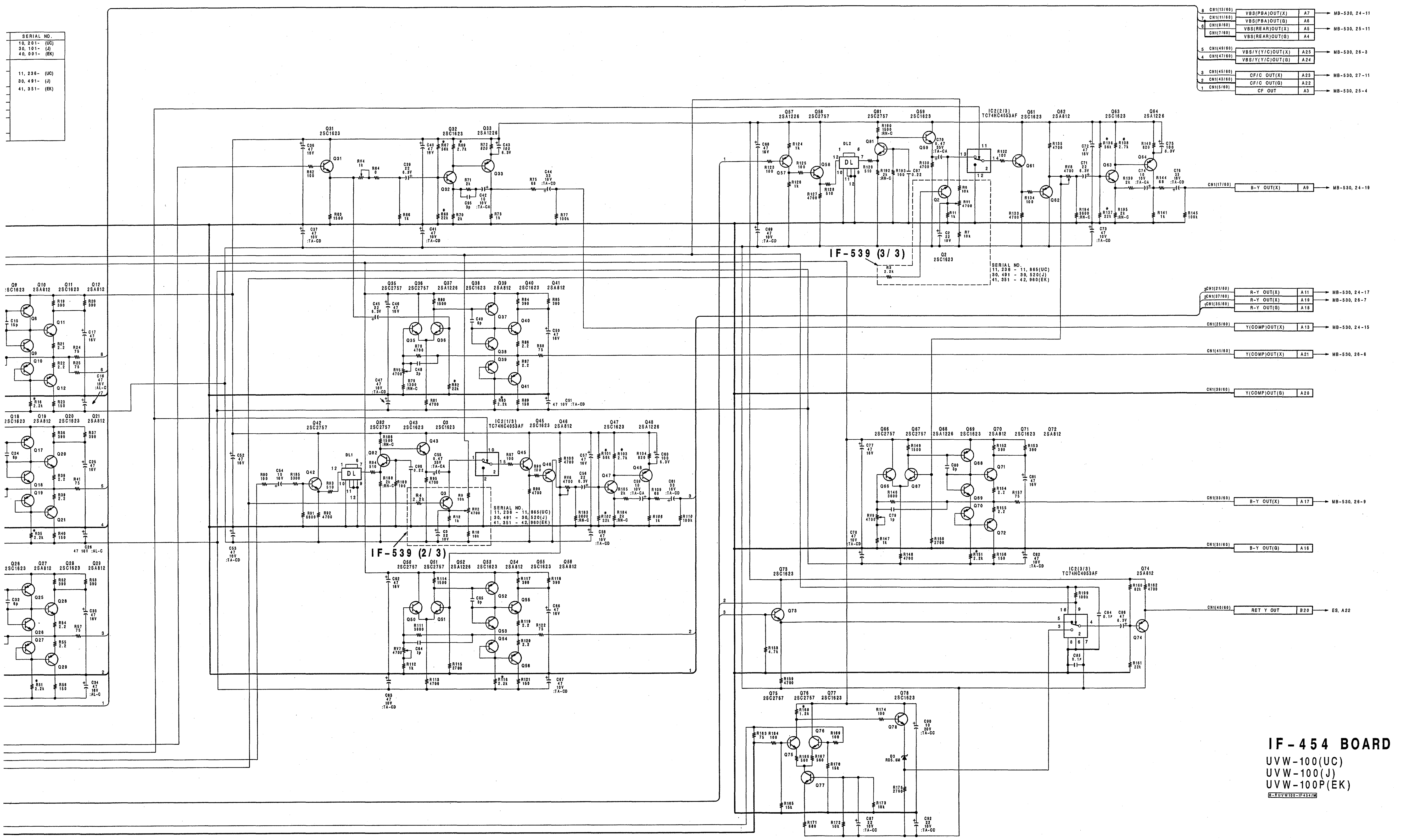

A30 +9V IN CN1(59/60)
A29 +9V IN CN1(57/60)
A1 +5V IN CN1(1/60)
A2 +5V IN CN1(3/60)
A28 EXT DC IN(X) CN1(55/60)
B28 EXT DC IN(G) CN1(56/60)
B2 GND CN1(4/60)
B1 GND CN1(2/60)
B29 -5V IN CN1(58/60)
B30 -5V IN CN1(60/60)
L1 22μH
L2 22μH
L3 22μH
Q1 2SC1623
Q2 2SA624 (50mA)
Q3 2SD596 (50mA)
ES, A12 → B17 VBS(VTR)IN CN1(34/60)
AT, A19 → B21 VTR SELECT IN CN1(42/60)
ES, A18 → B25 Y(Y/C)IN CN1(50/60)
ES, A7 → B13 CF IN CN1(26/60)
ES, A17 → B23 CHROMA IN CN1(46/60)
Q4 2SC1623
Q5 2SA812
Q13 2SC1623
IC1(1/3) MC14053BF
Q14 2SA812
Q22 2SA812
IC1(2/3) MC14053BF
IC1(3/3) MC14053BF
SERIAL NO. 11,236 - 11,865(UC) 30,491 - 30,520(J) 41,351 - 42,960(EK)
IF-539 (1/3)
MB-530, IC7-49 → B6 CLP2 IN CN1(12/60)
Q30 2SA812
ES, A24 → B11 Y(COMP)IN CN1(22/60)
ES, B9 → B3 C.BLKG IN CN1(6/60)
* R203 100
PR, B18 → B9 R-Y IN CN1(18/60)
PR, B17 → B7 B-Y IN CN1(14/60)
AT, A13 → B14 VF VIDEO E/I IN CN1(28/60) * R204 100
MB-530, 24-13 → B5 RET VTR IN CN1(10/60)
MB-530, IC7-49 → B6 CLP2 IN
* R196 0
MB-530, 27-8 → A15 RET CCZ IN(X) CN1(29/60)
A14 RET CCZ IN(G) CN1(27/60)
Q31 2SC1623
Q32 2SC1623
Q33 2SA1226
IC2(1/3) TC74HC4053AF
DL1
IF-539 (2/3)
SERIAL NO. 11,236 - 11,865(UC) 30,491 - 30,520(J) 41,351 - 42,960(EK)

NOTE

*

REF. NO.	CHANGE INFORMATION	SERIAL NO.
R16	4.7K ⟶ 3K	10,201- (UC) 30,101- (J) 40,001- (EK)
R16, 69, 103 R138	3k ⟶ 2.7k	11,236- (UC) 30,491- (J) 41,351- (EK)
R18, 35, 51 R83, 116, 151	2.4k ⟶ 2.2k	
R67, 101, 136	62k ⟶ 56k	
R68, 102, 137	24k ⟶ 22k	
R82	20k ⟶ 22k	
R168	1k ⟶ 1.2k	
R202, 203 R204	ADDED	
R196	2.2k ⟶ 0	

1. NM:NO MOUNT


SERIAL NO.
10, 201- (UC)
30, 101- (J)
40, 001- (EK)
11, 236- (UC)
30, 491- (J)
41, 351- (EK)
8 CN1(13/60) VBS(PBA)OUT(X) A7 MB-530, 24-11
7 CN1(11/60) VBS(PBA)OUT(G) A6
6 CN1(9/60) VBS(REAR)OUT(X) A5 MB-530, 25-11
CN1(7/60) VBS(REAR)OUT(G) A4
5 CN1(49/60) VBS/Y(Y/C)OUT(X) A25 MB-530, 26-3
4 CN1(47/60) VBS/Y(Y/C)OUT(G) A24
3 CN1(45/60) CF/C OUT(X) A23 MB-530, 27-11
2 CN1(43/60) CF/C OUT(G) A22
1 CN1(5/60) CF OUT A3 MB-530, 25-4
CN1(17/60) B-Y OUT(X) A9 MB-530, 24-19
3 CN1(21/60) R-Y OUT(X) A11 MB-530, 24-17
2 CN1(37/60) R-Y OUT(X) A19 MB-530, 26-7
1 CN1(35/60) R-Y OUT(G) A18
CN1(25/60) Y(COMP)OUT(X) A13 MB-530, 24-15
CN1(41/60) Y(COMP)OUT(X) A21 MB-530, 26-6
CN1(39/60) Y(COMP)OUT(G) A20
CN1(33/60) B-Y OUT(X) A17 MB-530, 26-9
CN1(31/60) B-Y OUT(G) A16
CN1(40/60) RET Y OUT B20 ES, A22
IF-539 (3/3)
IF-539 (2/3)
SERIAL NO.
11, 236 - 11, 865(UC)
30, 491 - 30, 520(J)
41, 351 - 42, 960(EK)
IC2(1/3) TC74HC4053AF
IC2(2/3) TC74HC4053AF
IC2(3/3) TC74HC4053AF
DL
DL1
DL2
1
2
3
4
5
E
F
G
H
I
J
K
L

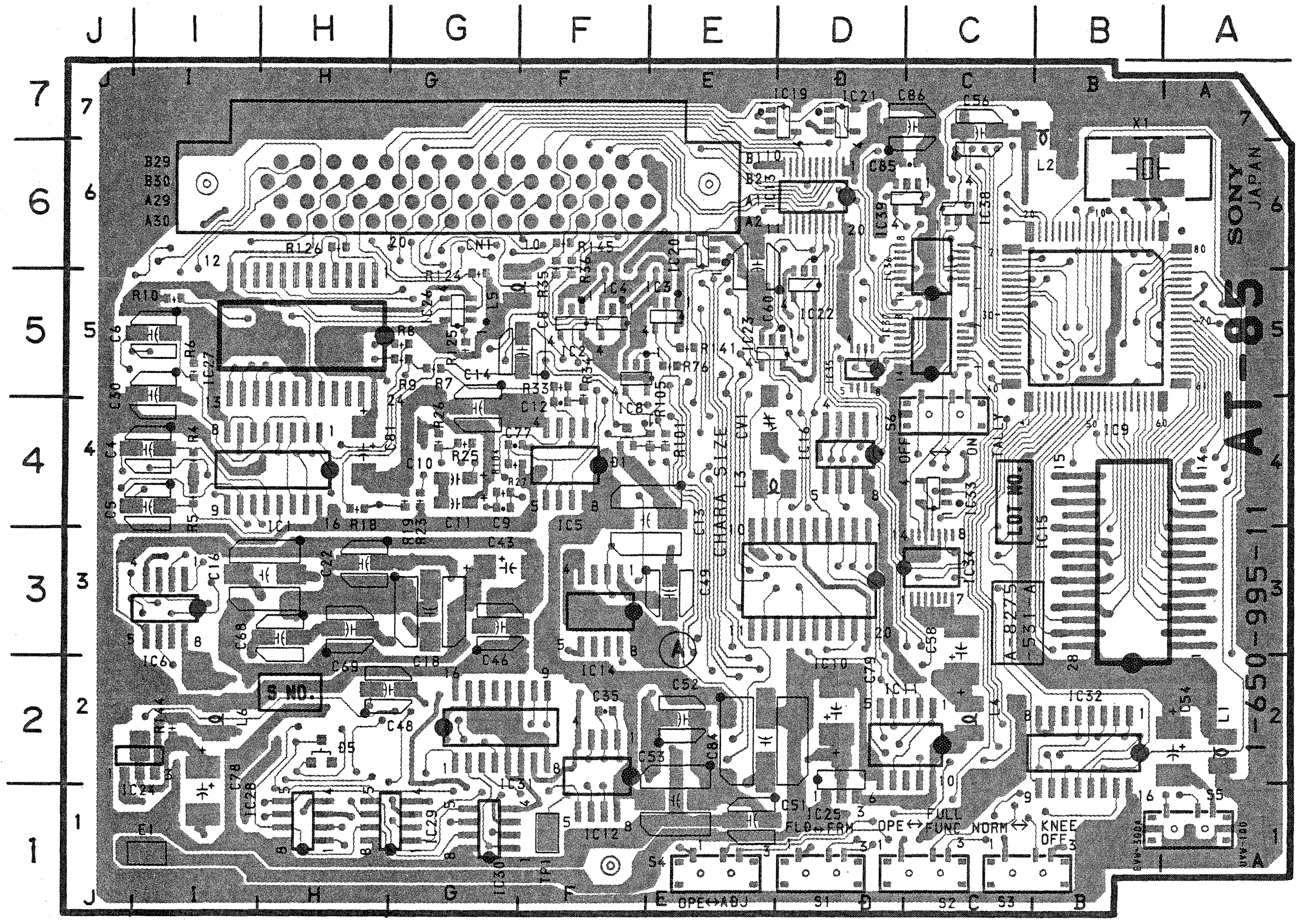
IF-454 BOARD

UVW-100(UC)
UVW-100(J)
UVW-100P(EK)

B-ﾁUVW100-IF454/M

AT-85 BOARD

SERIAL No. 10001-11235 (UC)
30001-30490 (J)
40001-41350 (EK)


J
I
H
G
F
E
D
C
B
A
7
6
5
4
3
2
1
SONY JAPAN
AT-85
1-650-995-11
CHARA SIZE
LOT NO.
S NO.
TALLY
OPE↔ADJ
S1
S2
S3
FLD↔FRM
OPE↔FUNC
FULL
NORM↔KNEE OFF
CN1
X1

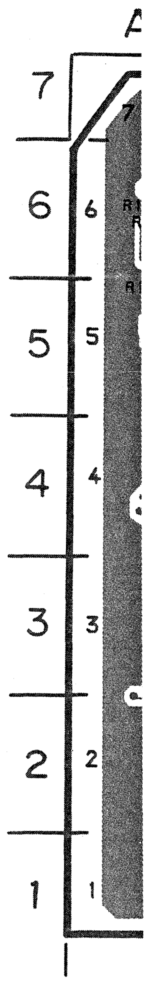
AT-85 -A SIDE-
1-650-995-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

AT-85(1-650-995-11)

* ; B SIDE

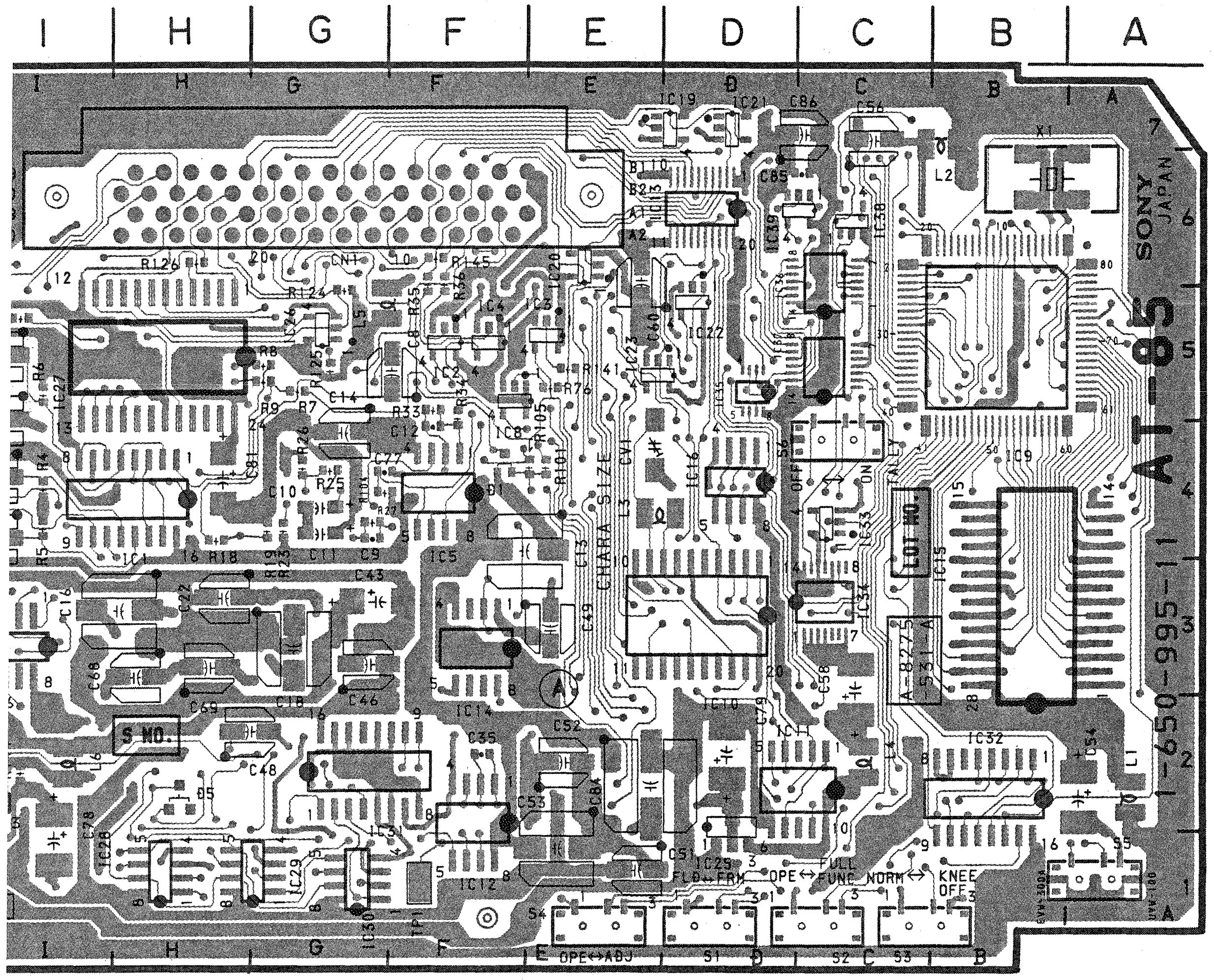
CN1	G-6
D1	F-4
*D3	H-3
*D4	E-1
D5	H-2
*D6	D-4
*D7	B-5
*D8	C-5
E1	I-1
IC1	H-4
IC2	F-5
IC3	E-5
IC4	F-5
IC5	F-4
IC6	I-2
IC8	F-4
IC9	B-4
IC10	D-2
IC11	D-2
IC12	F-1
IC13	E-6
IC14	F-2
IC15	B-3
IC16	D-4
*IC17	C-6
IC19	D-7
IC20	E-6
IC21	D-7
IC22	D-5
IC23	E-5
IC25	D-1
IC26	G-5
IC27	I-5
IC28	I-1
IC29	G-1
IC30	G-1
IC31	G-2
IC32	B-2
IC33	C-4
IC34	C-3
IC36	D-5
IC37	D-5
IC38	C-6
IC39	D-6
L1	A-2
L2	B-6
L3	E-4
L4	C-2
L5	G-5
L6	I-2
*Q1	I-5
*Q2	I-5
*Q3	I-5
*Q5	I-4
*Q6	H-4
*Q7	H-4
*Q8	H-4
*Q9	H-4
*Q10	G-4
*Q11	G-4
*Q12	G-4
*Q13	J-2
*Q14	H-2
*Q15	H-3
*Q16	I-3
*Q17	G-3
*Q18	F-3
*Q20	I-2
*Q21	I-2
*Q22	I-1
*Q23	I-2
*Q24	G-2
*Q25	H-2
*Q26	H-1
*Q27	I-6
*Q29	H-3
*Q30	C-6
S1	D-1
S2	C-1
S3	C-1
S4	E-1
S5	A-1
S6	D-4
TP1	F-1
X1	B-7

* ; B SIDE

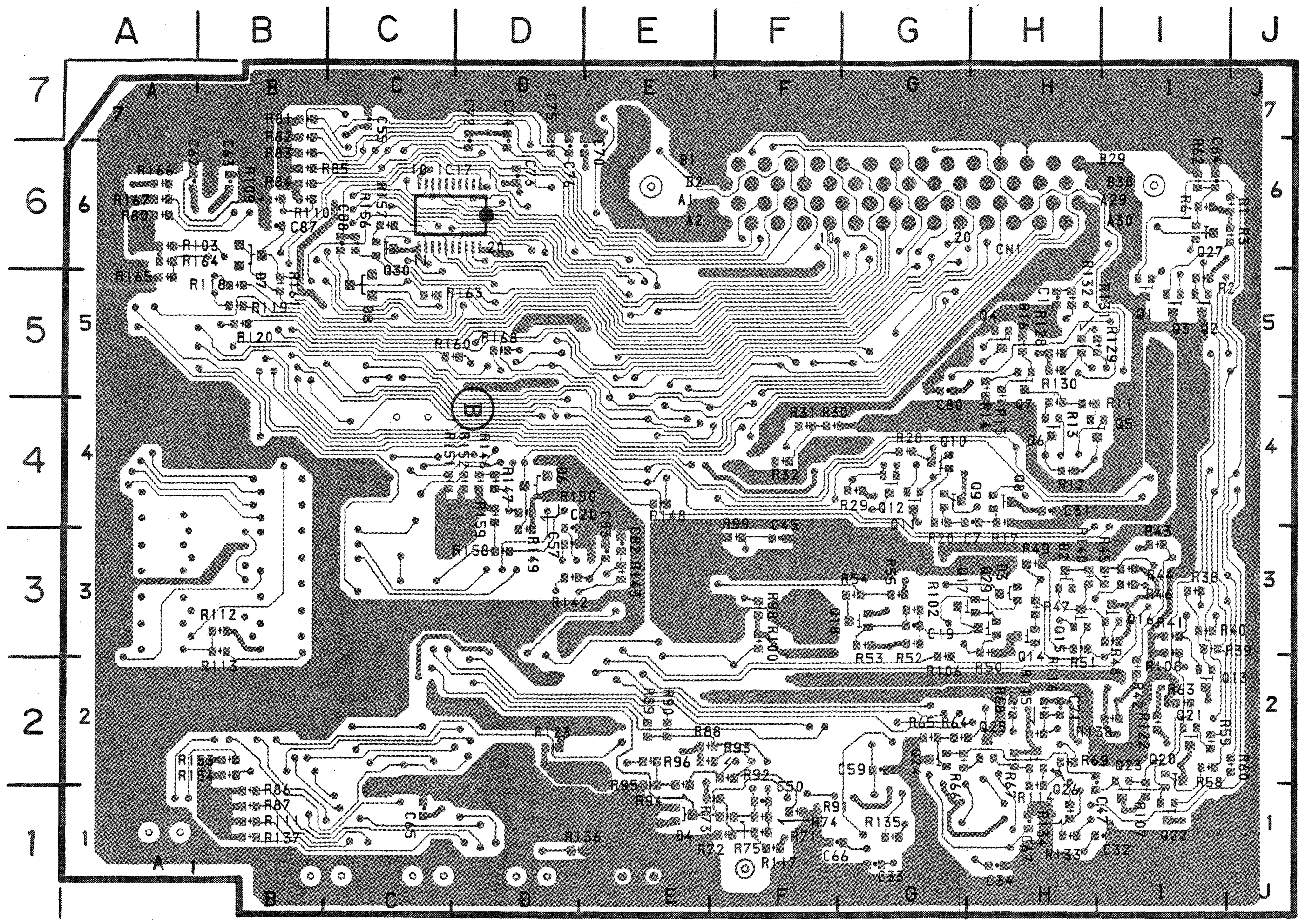


AT-85(1
* ; B S
CN1
D1
*D3
*D4
D5
*D6
*D7
*D8
E1
IC1
IC2

10001-11235 (UC)
30001-30490 (J)
40001-41350 (EK)


I
H
G
F
E
D
C
B
A
AT-85
1-650-995-11
SONY
JAPAN
CN1
CHARA SIZE
LOT NO.
S NO.
A-8275-531-A
IC9
IC32
IC5
IC14
IC12
IC22
IC15
X1
L1
L2
S1
S2
S3
S4
S5
OPE↔ADJ
FLD↔FRM
OPE↔FULL FUNC
NORM↔KNEE OFF
TP1
1
2
3
4
5
6
7

AT-85 -A SIDE-
1-650-995-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


A
B
C
D
E
F
G
H
I
J
1
2
3
4
5
6
7
CN1
IC17
Q30
R160
R168
R163
R31 R30
R112
R113
R136
C32
C33
C34
Q27
Q3 Q2
Q5
Q13
Q21
Q20
Q23
Q22

AT-85 -B SIDE-
1-650-995-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

50-995-11)

E

-6	IC3	E-5	IC19	D-7	IC34	C-3	*Q2	I-5	*Q17	G-3	S2	C-1
	IC4	F-5	IC20	E-6	IC36	D-5	*Q3	I-5	*Q18	F-3	S3	C-1
-4	IC5	F-4	IC21	D-7	IC37	D-5	*Q5	I-4	*Q20	I-2	S4	E-1
-3	IC6	I-2	IC22	D-5	IC38	C-6	*Q6	H-4	*Q21	I-2	S5	A-1
-1	IC8	F-4	IC23	E-5	IC39	D-6	*Q7	H-4	*Q22	I-1	S6	D-4
-2	IC9	B-4	IC25	D-1			*Q8	H-4	*Q23	I-2		
-4	IC10	D-2	IC26	G-5	L1	A-2	*Q9	H-4	*Q24	G-2	TP1	F-1
-5	IC11	D-2	IC27	I-5	L2	B-6	*Q10	G-4	*Q25	H-2		
-5	IC12	F-1	IC28	I-1	L3	E-4	*Q11	G-4	*Q26	H-1	X1	B-7
	IC13	E-6	IC29	G-1	L4	C-2	*Q12	G-4	*Q27	I-6		
-1	IC14	F-2	IC30	G-1	L5	G-5	*Q13	J-2	*Q29	H-3	* ; B SIDE	
	IC15	B-3	IC31	G-2	L6	I-2	*Q14	H-2	*Q30	C-6		
-4	IC16	D-4	IC32	B-2			*Q15	H-3				
-5	*IC17	C-6	IC33	C-4	*Q1	I-5	*Q16	I-3	S1	D-1		

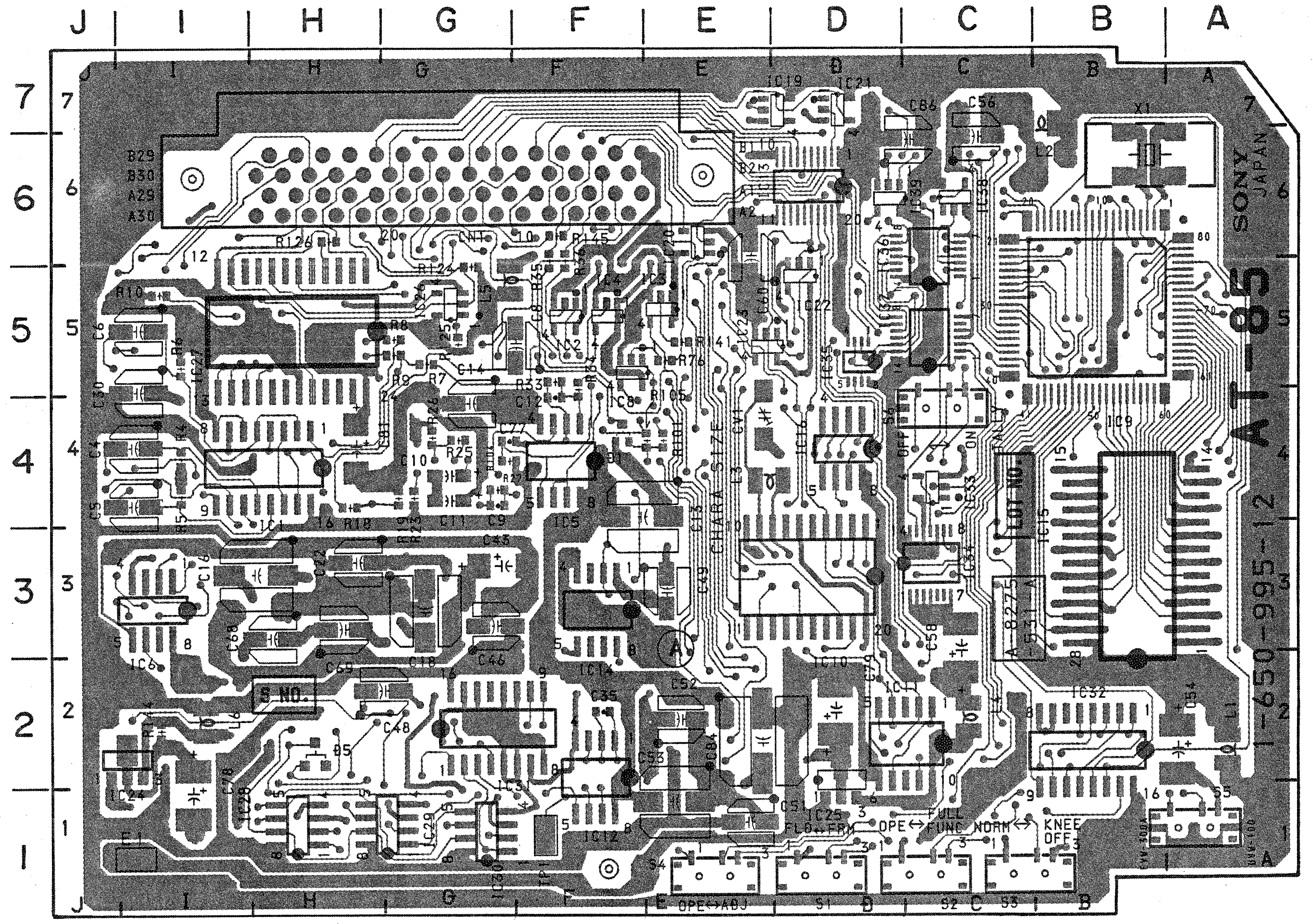
AT-85(1-650-995-11)

* ; B SIDE

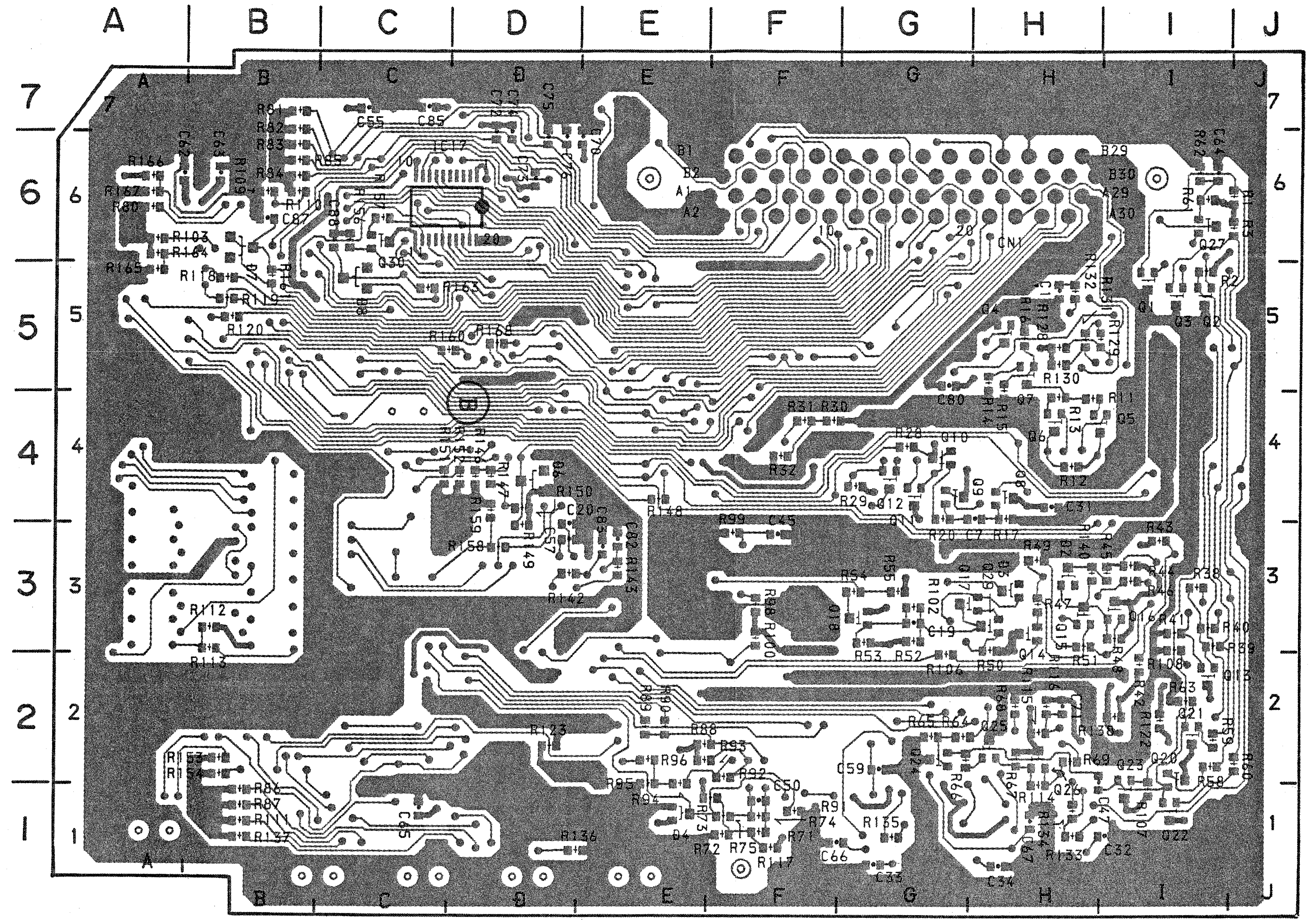
CN1	G-6	IC3	E-5	IC19	D-7	IC34	C-3	*Q2	I-5	*Q17	G-3	S2	C-1
		IC4	F-5	IC20	E-6	IC36	D-5	*Q3	I-5	*Q18	F-3	S3	C-1
D1	F-4	IC5	F-4	IC21	D-7	IC37	D-5	*Q5	I-4	*Q20	I-2	S4	E-1
*D3	H-3	IC6	I-2	IC22	D-5	IC38	C-6	*Q6	H-4	*Q21	I-2	S5	A-1
*D4	E-1	IC8	F-4	IC23	E-5	IC39	D-6	*Q7	H-4	*Q22	I-1	S6	D-4
D5	H-2	IC9	B-4	IC25	D-1			*Q8	H-4	*Q23	I-2		
*D6	D-4	IC10	D-2	IC26	G-5	L1	A-2	*Q9	H-4	*Q24	G-2	TP1	F-1
*D7	B-5	IC11	D-2	IC27	I-5	L2	B-6	*Q10	G-4	*Q25	H-2		
*D8	C-5	IC12	F-1	IC28	I-1	L3	E-4	*Q11	G-4	*Q26	H-1	X1	B-7
		IC13	E-6	IC29	G-1	L4	C-2	*Q12	G-4	*Q27	I-6		
E1	I-1	IC14	F-2	IC30	G-1	L5	G-5	*Q13	J-2	*Q29	H-3	* ; B SIDE	
		IC15	B-3	IC31	G-2	L6	I-2	*Q14	H-2	*Q30	C-6		
IC1	H-4	IC16	D-4	IC32	B-2			*Q15	H-3				
IC2	F-5	*IC17	C-6	IC33	C-4	*Q1	I-5	*Q16	I-3	S1	D-1		

AT-85 BOARD

SERIAL No. 11236 and higher (UC)
30491 and higher (J)
41351 and higher (EK)



AT-85 -A SIDE-
1-650-995-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)



AT-85 -B SIDE-
1-650-995-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

AT-85(1-650-995-12)

*; B SIDE

CN1	G-6	IC3	E-5	IC19	D-7	IC34	C-3	*Q2	I-5	*Q17	G-3	S2	C-1
		IC4	F-5	IC20	E-6	IC36	D-5	*Q3	I-5	*Q18	F-3	S3	C-1
D1	F-4	IC5	F-4	IC21	D-7	IC37	D-5	*Q5	I-4	*Q20	I-2	S4	E-1
*D3	H-3	IC6	I-2	IC22	D-5	IC38	C-6	*Q6	H-4	*Q21	I-2	S5	A-1
*D4	E-1	IC8	F-4	IC23	E-5	IC39	D-6	*Q7	H-4	*Q22	I-1	S6	D-4
D5	H-2	IC9	B-4	IC25	D-1			*Q8	H-4	*Q23	I-2		
*D6	D-4	IC10	D-2	IC26	G-5	L1	A-2	*Q9	H-4	*Q24	G-2	TP1	F-1
*D7	B-5	IC11	D-2	IC27	I-5	L2	B-6	*Q10	G-4	*Q25	H-2		
*D8	C-5	IC12	F-1	IC28	I-1	L3	E-4	*Q11	G-4	*Q26	H-1	X1	B-7
		IC13	E-6	IC29	G-1	L4	C-2	*Q12	G-4	*Q27	I-6		
E1	I-1	IC14	F-2	IC30	G-1	L5	G-5	*Q13	J-2	*Q29	H-3		
		IC15	B-3	IC31	G-2	L6	I-2	*Q14	H-2	*Q30	C-6		
IC1	H-4	IC16	D-4	IC32	B-2			*Q15	H-3				
IC2	F-5	*IC17	C-6	IC33	C-4	*Q1	I-5	*Q16	I-3	S1	D-1		

*; B SIDE

AT-85(1-650-995-12)

*; B SIDE

CN1	G-6	IC3	E-5	IC19	D-7	IC34	C-3	*Q2	I-5	*Q17	G-3	S2	C-1
		IC4	F-5	IC20	E-6	IC36	D-5	*Q3	I-5	*Q18	F-3	S3	C-1
D1	F-4	IC5	F-4	IC21	D-7	IC37	D-5	*Q5	I-4	*Q20	I-2	S4	E-1
*D3	H-3	IC6	I-2	IC22	D-5	IC38	C-6	*Q6	H-4	*Q21	I-2	S5	A-1
*D4	E-1	IC8	F-4	IC23	E-5	IC39	D-6	*Q7	H-4	*Q22	I-1	S6	D-4
D5	H-2	IC9	B-4	IC25	D-1			*Q8	H-4	*Q23	I-2		
*D6	D-4	IC10	D-2	IC26	G-5	L1	A-2	*Q9	H-4	*Q24	G-2	TP1	F-1
*D7	B-5	IC11	D-2	IC27	I-5	L2	B-6	*Q10	G-4	*Q25	H-2		
*D8	C-5	IC12	F-1	IC28	I-1	L3	E-4	*Q11	G-4	*Q26	H-1	X1	B-7
		IC13	E-6	IC29	G-1	L4	C-2	*Q12	G-4	*Q27	I-6		
E1	I-1	IC14	F-2	IC30	G-1	L5	G-5	*Q13	J-2	*Q29	H-3		
		IC15	B-3	IC31	G-2	L6	I-2	*Q14	H-2	*Q30	C-6		
IC1	H-4	IC16	D-4	IC32	B-2			*Q15	H-3				
IC2	F-5	*IC17	C-6	IC33	C-4	*Q1	I-5	*Q16	I-3	S1	D-1		

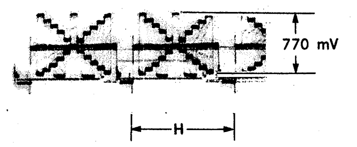
*; B SIDE

CAMERA SYSTEM CONTROL

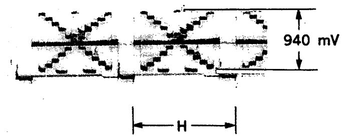
注意：
1. DC電圧はデジタル電圧計による値。
   No Mark : CAM side
2. 波形写真，およびDC電圧は下記条件での測定。
   - グレースケールチャートを撮像し，波形モニターにて，ビデオ出力の白レベルが100IREになるようにレンズ絞りをセットする。
   - OUTPUT : CAM
   - GAIN : 0dB
   - WHITE BAL : PRE
   - SHUTTER : OFF

NOTE :
1. All voltage are DC. measured with a digital voltmeter.
   No Mark : CAM side
2. All waveforms are taken and DC voltage is measured in condition below.
   - Shoot the grayscale chart. Adjust lens iris so that a white level is 100IRE for NTSC or 700 mV for PAL on the waveform monitor.
   - OUTPUT : CAM
   - GAIN : 0dB
   - WHITE BAL : PRE
   - SHUTTER : OFF

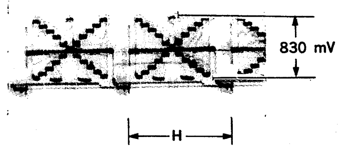
① CN1-B28 R PR VIDEO CAM side



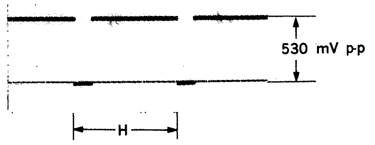
② CN1-B26 B PR VIDEO CAM side



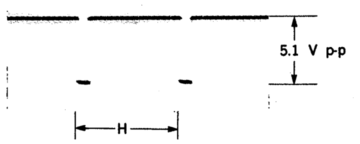
③ CN1-B27 G PR VIDEO CAM side



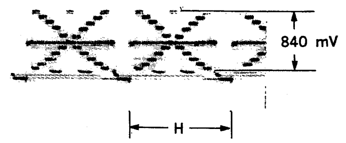
④ CN1-B5 BLKG CAM/BARS



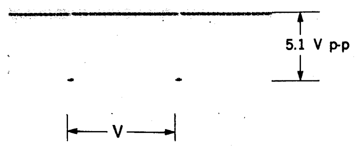
⑤ CN1-B4 HD CAM/BARS



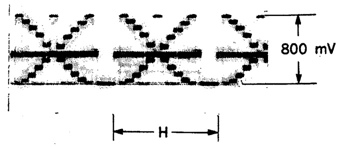
⑥ Q13 Ⓑ R/G/B PR VIDEO CAM side



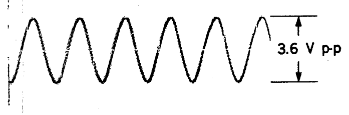
⑦ CN1-B3 VD CAM/BARS



⑧ Q24 Ⓔ R/G/B PR VIDEO CAM side

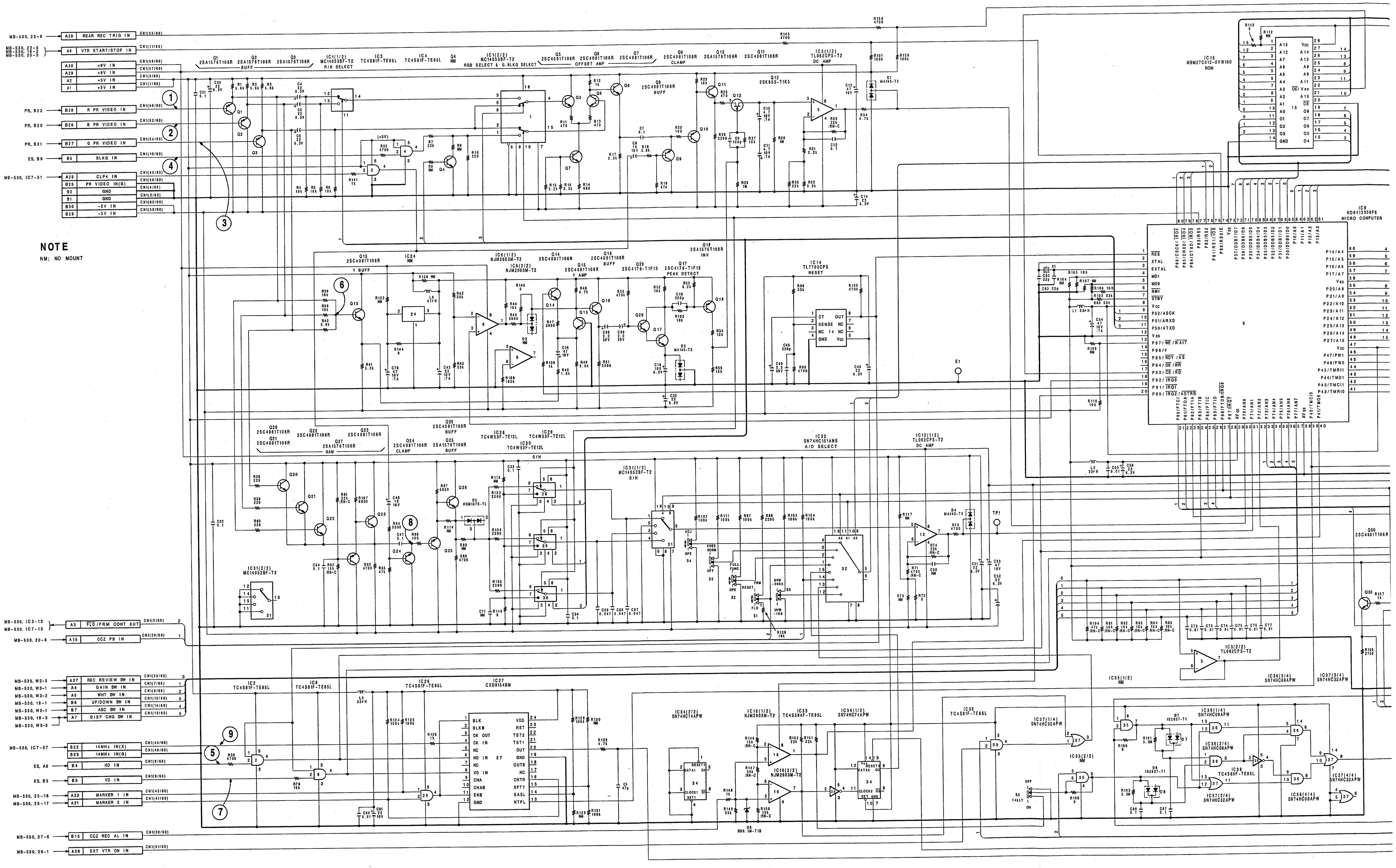


⑨ CN1-B22 4FSC CAM side



14.3 MHz (NTSC) 17.7 MHz (PAL)

CAMERA SYSTEM CONTROL

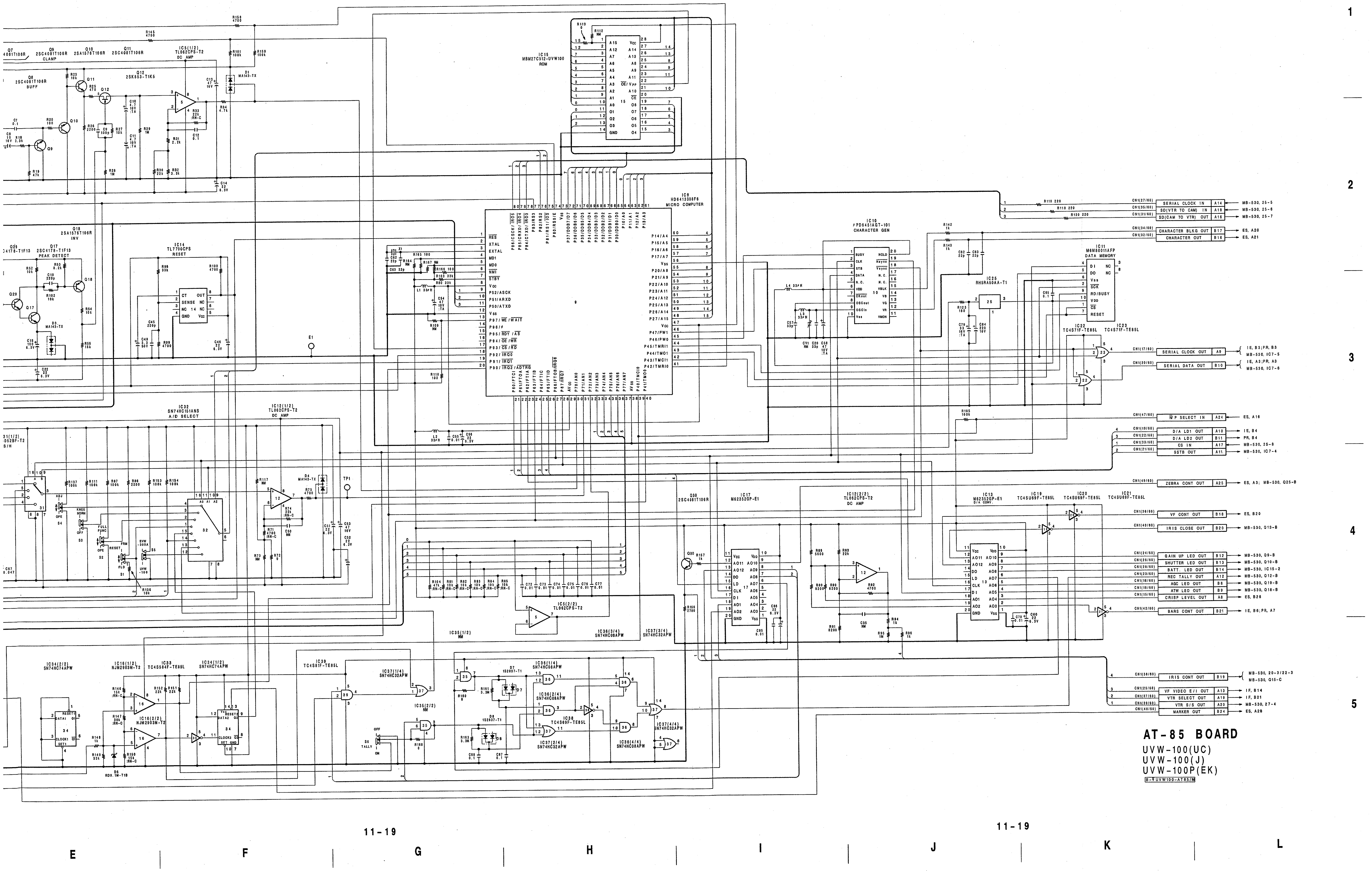

MB-530, 25-9
A28 REAR REC TRIG IN
A6 VTR START/STOP IN
A30 +9V IN
A29 +9V IN
A2 +5V IN
A1 +5V IN
PR, B22
B28 R PR VIDEO IN
PR, B20
B26 B PR VIDEO IN
PR, B21
B27 G PR VIDEO IN
ES, B9
B5 BLKG IN
MB-530, IC7-51
A23 CLP4 IN
B25 PR VIDEO IN(G)
B2 GND
B1 GND
B30 -5V IN
B29 -5V IN
Q1 2SA1576T106R
Q2 2SA1576T106R
Q3 2SA1576T106R
BUFF
IC1(1/2) MC14053BF-T2
R/B SELECT
IC3 TC4S81F-TE85L
IC4 TC4S81F-TE85L
Q4 NM
IC1(2/2) MC14053BF-T2
RGB SELECT & G.BLKG SELECT
Q5 2SC4081T106R
Q6 2SC4081T106R
OFFSET AMP
Q7 2SC4081T106R
Q8 2SC4081T106R
BUFF
Q9 2SC4081T106R
CLAMP
Q10 2SA1576T106R
Q11 2SC4081T106R
Q12 2SK853-T1K5
IC5(1/2) TL062CPS-T2
DC AMP
IC15 MBM27C512-UVW100
ROM
IC9 HD6413398F6
MICRO COMPUTER
Q13 2SC4081T106R
Y BUFF
IC24 NM
IC6(1/2) NJM2903M-T2
IC6(2/2) NJM2903M-T2
Q14 2SC4081T106R
Q15 2SC4081T106R
Y AMP
Q16 2SC4081T106R
BUFF
Q29 2SC4178-T1F13
Q17 2SC4178-T1F13
PEAK DETECT
Q18 2SA1576T106R
INV
IC14 TL7700CPS
RESET
E1
Q20 2SC4081T106R
Q21 2SC4081T106R
Q22 2SC4081T106R
NAM
Q23 2SC4081T106R
Q27 2SA1576T106R
Q24 2SC4081T106R
CLAMP
Q25 2SA1576T106R
BUFF
Q26 2SC4081T106R
BUFF
IC28 TC4W53F-TE12L
IC29 TC4W53F-TE12L
IC30 TC4W53F-TE12L
S/H
IC31(1/2) MC14052BF-T2
S/H
IC31(2/2) MC14052BF-T2
IC32 SN74HC151ANS
A/D SELECT
IC12(1/2) TL062CPS-T2
DC AMP
TP1
Q30 2SC4081T106R
IC5(2/2) TL062CPS-T2
MB-530, IC3-13
MB-530, IC7-13
A3 FLD/FRM CONT OUT
MB-530, 20-6
A15 CCZ PB IN
MB-530, W2-5
A27 REC REVIEW SW IN
MB-530, W3-1
A4 GAIN SW IN
MB-530, W3-2
A5 WHT SW IN
MB-530, 18-1
B6 UP/DOWN SW IN
MB-530, W2-1
B7 AGC SW IN
MB-530, 18-3
A7 DISP CHG SW IN
MB-530, W3-3
MB-530, IC7-57
B22 14MHz IN(X)
B23 14MHz IN(G)
ES, A8
B4 HD IN
ES, B3
B3 VD IN
MB-530, 25-18
A22 MARKER 1 IN
MB-530, 25-17
A21 MARKER 2 IN
MB-530, 27-6
B15 CCZ REC AL IN
MB-530, 26-1
A26 EXT VTR ON IN
IC2 TC4S81F-TE85L
IC8 TC4S81F-TE85L
IC26 TC4S81F-TE85L
IC27 CXD8154BM
IC34(2/2) SN74HC74APW
IC16(1/2) NJM2903M-T2
IC16(2/2) NJM2903M-T2
IC33 TC4S584F-TE85L
IC34(1/2) SN74HC74APW
IC39 TC4S81F-TE85L
IC37(1/4) SN74HC32APW
IC35(1/2) NM
IC35(2/2) NM
IC36(1/4) SN74HC08APW
IC36(2/4) SN74HC08APW
IC36(3/4) SN74HC08APW
IC36(4/4) SN74HC08APW
IC37(2/4) SN74HC32APW
IC37(3/4) SN74HC32APW
IC37(4/4) SN74HC32APW
IC38 TC4S69F-TE85L
D6 RD9.1M-T1B
D7 1SS237-T1
D8 1SS237-T1
S1 FLD FRM
S2 OPE RESET
S3 FULL FUNC OFF
S4 ADJ OPE
S5 SVW-300A UVW-100
S6 TALLY OFF ON
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

NOTE

NM; NO MOUNT

UVW-100 (J)
UVW-100 (UC)
UVW-100P (EK)

A | B | C | D | E | F | G | H



AT-85 BOARD

UVW-100(UC)
UVW-100(J)
UVW-100P(EK)
B-¥UVW100-AT85/M

1
2
3
4
5
IC15 MBM27C512-UVW100 ROM
IC9 HD6413308F6 MICRO COMPUTER
IC10 μPD6451AGT-101 CHARACTER GEN
IC11 M6M80011AFP DATA MEMORY
IC25 RH5RA50AA-T1
IC22 TC4S71F-TE85L
IC23 TC4S71F-TE85L
IC14 TL7700CPS RESET
IC5(1/2) TL062CPS-T2 DC AMP
IC5(2/2) TL062CPS-T2
IC32 SN74HC151ANS A/D SELECT
IC12(1/2) TL062CPS-T2 DC AMP
IC12(2/2) TL062CPS-T2 DC AMP
IC17 M62352GP-E1
IC13 M62352GP-E1 D/A CONV.
IC19 TC4SU69F-TE85L
IC20 TC4SU69F-TE85L
IC21 TC4SU69F-TE85L
Q30 2SC4081T106R
IC34(2/2) SN74HC74APW
IC16(1/2) NJM2903M-T2
IC16(2/2) NJM2903M-T2
IC33 TC4S584F-TE85L
IC34(1/2) SN74HC74APW
IC39 TC4S81F-TE85L
IC37(1/4) SN74HC32APW
IC35(2/2) NM
IC35(1/2) NM
IC36(1/4) SN74HC08APW
IC36(2/4) SN74HC08APW
IC36(3/4) SN74HC08APW
IC36(4/4) SN74HC08APW
IC37(2/4) SN74HC32APW
IC37(3/4) SN74HC32APW
IC37(4/4) SN74HC32APW
IC38 TC4S69F-TE85L
Q7 2SC4081T106R
Q9 2SC4081T106R CLAMP
Q10 2SA1576T106R
Q11 2SC4081T106R
Q8 2SC4081T106R BUFF
Q12 2SK853-T1K5
Q18 2SA1576T106R INV
Q17 2SC4178-T1F13 PEAK DETECT
Q20 2SC4178-T1F13
D1 MA143-TX
D3 MA143-TX
D4 MA143-TX
D5 RD9.1M-T1B
D7 1SS357-T1
D8 1SS357-T1
E1
TP1
S1
S2
S3
S4
S5
S6 TALLY OFF ON
CN1(27/60) SERIAL CLOCK IN A14 MB-530, 25-5
CN1(35/60) SD(VTR TO CAM) IN A18 MB-530, 25-6
CN1(31/60) SD(CAM TO VTR) OUT A16 MB-530, 25-7
CN1(34/60) CHARACTER BLKG OUT B17 ES, A20
CN1(32/60) CHARACTER OUT B16 ES, A21
CN1(17/60) SERIAL CLOCK OUT A9 IE, B3;PR, B3 MB-530, IC7-5
CN1(20/60) SERIAL DATA OUT B10 IE, A3;PR, A3 MB-530, IC7-6
CN1(47/60) N/P SELECT IN A24 ES, A16
CN1(19/60) D/A LD1 OUT A10 IE, B4
CN1(22/60) D/A LD2 OUT B11 PR, B4
CN1(33/60) CS IN A17 MB-530, 25-8
CN1(21/60) SSTB OUT A11 MB-530, IC7-4
CN1(49/60) ZEBRA CONT OUT A25 ES, A3; MB-530, Q25-B
CN1(36/60) VF CONT OUT B18 ES, B20
CN1(40/60) IRIS CLOSE OUT B20 MB-530, Q13-B
CN1(24/60) GAIN UP LED OUT B12 MB-530, Q9-B
CN1(26/60) SHUTTER LED OUT B13 MB-530, Q10-B
CN1(28/60) BATT. LED OUT B14 MB-530, IC15-2
CN1(23/60) REC TALLY OUT A12 MB-530, Q12-B
CN1(16/60) AGC LED OUT B8 MB-530, Q19-B
CN1(18/60) ATW LED OUT B9 MB-530, Q18-B
CN1(15/60) CRISP LEVEL OUT A8 ES, B26
CN1(42/60) BARS CONT OUT B21 IE, B6;PR, A7
CN1(38/60) IRIS CONT OUT B19 MB-530, 20-3/22-3 MB-530, Q15-C
CN1(25/60) VF VIDEO E/I OUT A13 IF, B14
CN1(37/60) VTR SELECT OUT A19 IF, B21
CN1(39/60) VTR S/S OUT A20 MB-530, 27-4
CN1(48/60) MARKER OUT B24 ES, A28
E
F
G
H
I
J
K
L

VO-46/46A BOARD

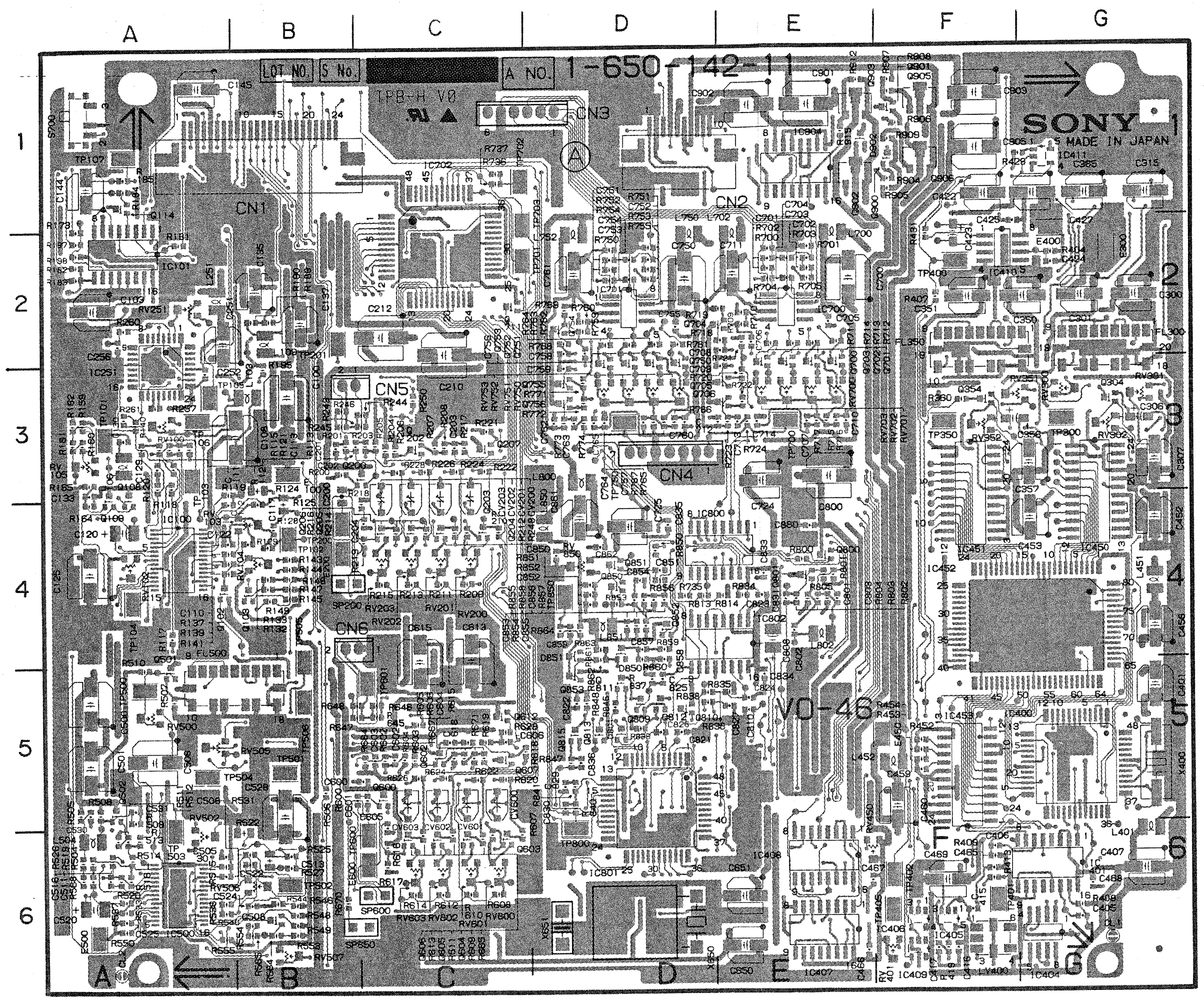
VO-46/46A(1-650-142-11)

* ; B SIDE

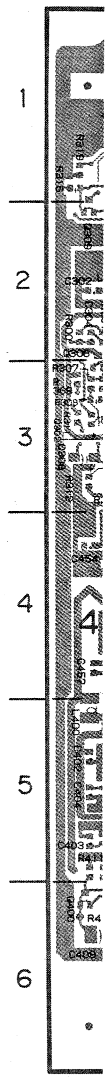
CN1	B-1
CN2	D-1
CN3	D-1
CN4	D-3
CN5	B-3
CN6	B-4
CV200	C-4
CV201	C-4
CN202	C-4
CV203	C-4
CV600	C-5
CV601	C-5
CV602	C-5
CV603	C-5
*D100	A-2
*D400	F-6
*D402	G-6
*D800	D-5
D801	D-5
D850	D-4
D851	D-4
*D901	F-1
D902	E-1
E100	B-3
E200	B-4
E300	G-2
E400	G-2
E450	F-5
E500	A-6
E600	C-6
FL300	G-2
FL350	F-2
FL500	A-5
IC100	A-4
IC101	A-2
IC251	A-3
IC400	G-5
IC401	G-6
*IC402	G-6
*IC403	F-6
IC404	G-6
IC405	F-6
IC406	F-6
IC407	E-6
IC408	E-6
IC409	F-6
IC410	F-2
IC411	G-1
IC450	G-4
IC451	F-4
IC452	G-4
IC453	F-5
IC500	A-6
*IC650	D-6
*IC651	C-6
IC700	E-2
IC701	D-2
IC702	C-2
IC800	E-4
IC801	D-5
IC802	E-4
*IC900	D-1
*IC902	E-1
*IC903	E-1
IC904	E-1
*IC905	F-1
*IC906	D-1
LV400	F-6
*L100	B-3
L103	B-3
*L104	A-4
*L105	B-3
L106	A-3
*L107	B-2
*L108	B-2
*L200	C-2
*L201	C-2
L251	A-2
*L300	G-2
*L301	G-2
*L302	G-3
*L350	F-2
*L351	F-2
*L352	F-3
*L400	G-5
L401	G-6
*L402	F-1
*L450	G-4
L451	G-4
L452	F-5
*L453	F-6
*L500	A-5
*L501	A-5
*L502	B-5
*L503	B-5
L504	A-6
*L600	C-5
*L601	C-5
*L602	C-5
*L650	E-6
*L651	E-6
*L652	D-6
*L653	C-6
L700	E-2
*L701	E-3
L702	E-2
L750	D-2
*L751	D-3
L752	D-2
L800	D-3
*L801	E-3
L802	E-4
*L803	D-5
L850	D-4
L851	D-4
*Q101	A-3
Q102	A-4
Q103	B-4
*Q104	A-4
*Q105	A-3
*Q106	A-3
*Q107	A-3
Q108	A-4
Q109	A-4
*Q110	A-3
*Q113	A-2
Q114	A-1
*Q115	A-3
*Q116	A-3
*Q117	A-3
Q200	C-3
*Q201	C-3
Q202	C-3
Q203	C-4
Q204	C-4
Q205	C-4
Q206	C-4
Q207	C-3
*Q212	C-3
*Q213	C-3
*Q214	C-3
*Q215	C-3
*Q216	C-3
*Q217	C-3
*Q218	C-3
*Q219	B-3
*Q300	G-2
*Q301	G-3
*Q302	G-3
*Q303	G-3
Q304	G-3
*Q305	G-3
*Q306	G-3
*Q309	G-2
*Q350	F-2
*Q351	F-3
*Q352	F-3
*Q353	F-3
Q354	F-3
*Q355	F-3
*Q356	G-3
*Q359	G-2
*Q400	G-6
*Q401	G-6
*Q402	F-1
*Q500	B-5
Q501	A-5
Q502	A-5
*Q503	A-5
*Q504	B-5
*Q505	B-5
*Q506	B-6
*Q507	A-5
Q508	B-6
*Q509	A-5
*Q510	A-5
Q600	C-5
*Q601	C-5
Q602	C-5
Q603	C-6
Q604	C-6
Q605	C-6
Q606	C-6
Q607	C-5
Q612	C-5
*Q613	C-5
*Q614	C-5
*Q615	C-5
*Q616	C-5
*Q617	C-5
*Q618	C-5
*Q619	C-5
*Q620	B-5
*Q650	D-6
*Q651	D-6
*Q652	C-6
*Q653	C-6
*Q654	C-6
Q700	E-3
Q701	E-3
Q702	E-3
Q703	E-3
Q704	E-2
Q705	E-3
Q706	E-3
*Q707	C-2
*Q708	C-2
*Q709	C-2
*Q710	C-1
Q711	C-2
Q750	D-3
Q751	D-3
Q752	D-3
Q753	D-3
Q754	D-2
Q755	D-3
Q756	D-3
Q800	E-4
Q801	E-4
*Q802	E-5
*Q803	E-5
*Q804	E-5
*Q805	D-5
*Q806	D-5
*Q807	E-5
*Q808	D-5
Q809	D-5
Q810	D-5
Q811	D-5
Q812	D-5
Q813	D-5
*Q814	D-4
Q815	D-5
Q850	D-4
Q851	D-4
Q852	D-4
Q853	D-5
Q900	F-1
Q901	F-1
Q902	E-1
Q903	E-1
Q905	F-1
Q906	F-1
RV100	A-3
RV102	A-4
RV103	B-4
RV104	B-4
RV105	A-3
RV200	C-4
RV201	C-4
RV202	C-4
RV203	C-4
RV251	A-2
RV300	G-3
RV301	G-3
RV302	G-3
RV351	F-3
RV352	F-3
RV401	F-6
RV450	E-6
RV500	A-5
RV502	A-6
RV505	A-5
RV506	B-6
RV507	B-6
RV600	C-6
RV601	C-6
RV602	C-6
RV603	C-6
RV700	E-3
RV701	E-3
RV702	E-3
RV703	E-3
RV750	D-3
RV751	D-3
RV752	D-3
RV753	D-3
RV850	D-4
SP200	B-4
SP600	C-6
SP650	B-6
SS200	B-4
SS600	C-6
SS650	B-6
S700	A-1
*TH400	E-6
TP101	A-3
TP102	B-4
TP103	A-3
TP104	A-4
TP105	A-3
TP106	A-3
TP107	A-1
TP200	B-4
TP201	B-2
TP300	G-3
TP350	F-3
TP400	F-2
TP401	F-6
TP402	F-6
TP405	F-6
TP500	A-5
TP501	B-5
TP502	B-6
TP503	A-6
TP504	A-5
TP505	B-4
TP506	B-5
TP600	C-6
TP601	C-5
TP700	E-3
TP701	C-2
TP702	C-1
TP703	C-2
TP750	D-3
TP800	D-6
TP850	D-4
X400	G-5
X650	D-6
X651	D-6

* ; B SIDE

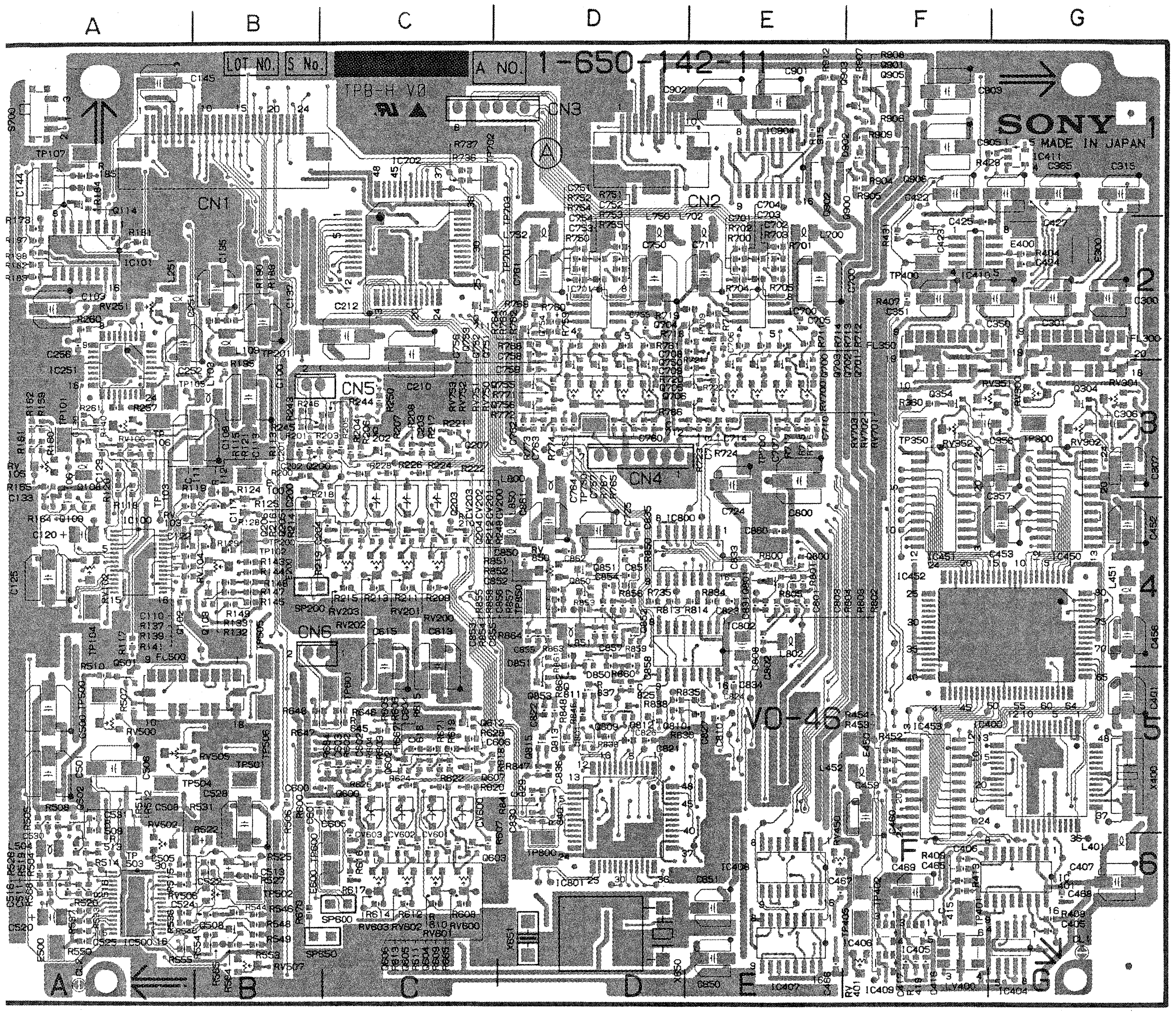
SERIAL No. 10001-10975 (UC)
30001-30470 (J)
40001-41210 (EK)



VO-46/46A -A SIDE-
1-650-142-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

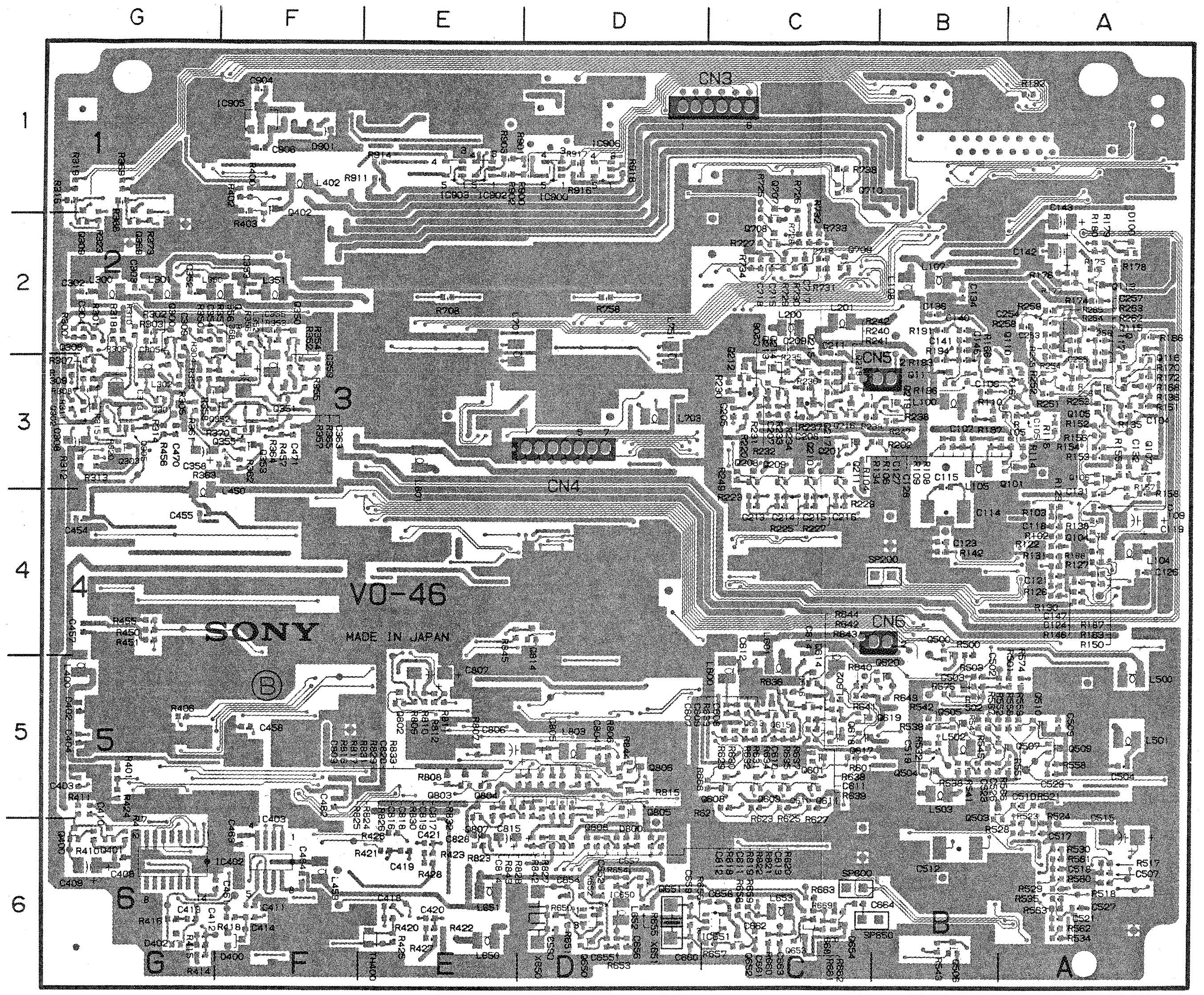


ERIAL No. 10001-10975 (UC)
30001-30470 (J)
40001-41210 (EK)


A
B
C
D
E
F
G
1
2
3
4
5
6
LOT NO.
S No.
A NO.
1-650-142-11
SONY
MADE IN JAPAN
CN1
CN2
CN3
CN4
CN5
CN6
VO-46

VO-46/46A -A SIDE-

1-650-142-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

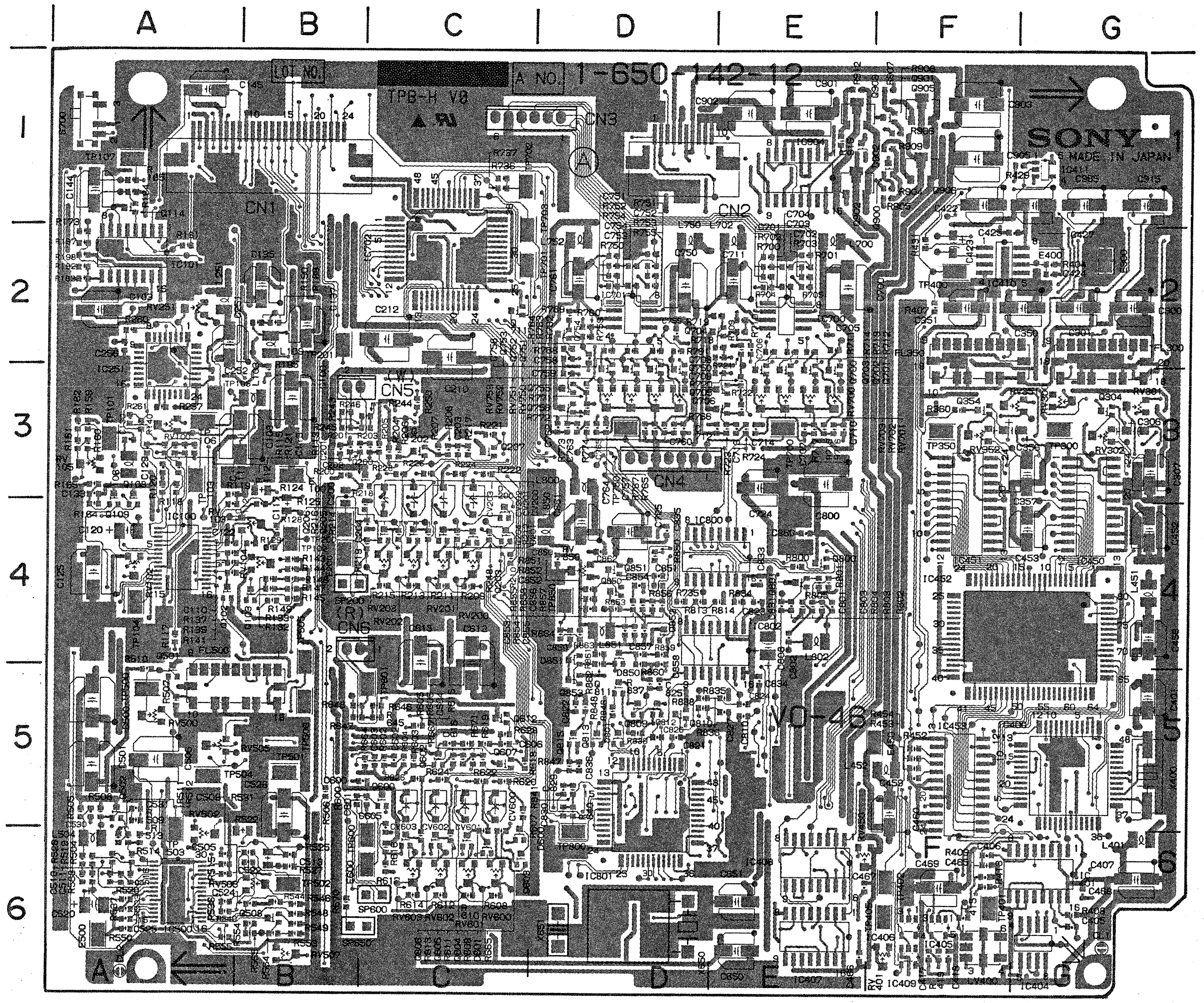

G
F
E
D
C
B
A
1
2
3
4
5
6
CN3
CN4
CN5
CN6
VO-46
SONY
MADE IN JAPAN

VO-46/46A -B SIDE-

1-650-142-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

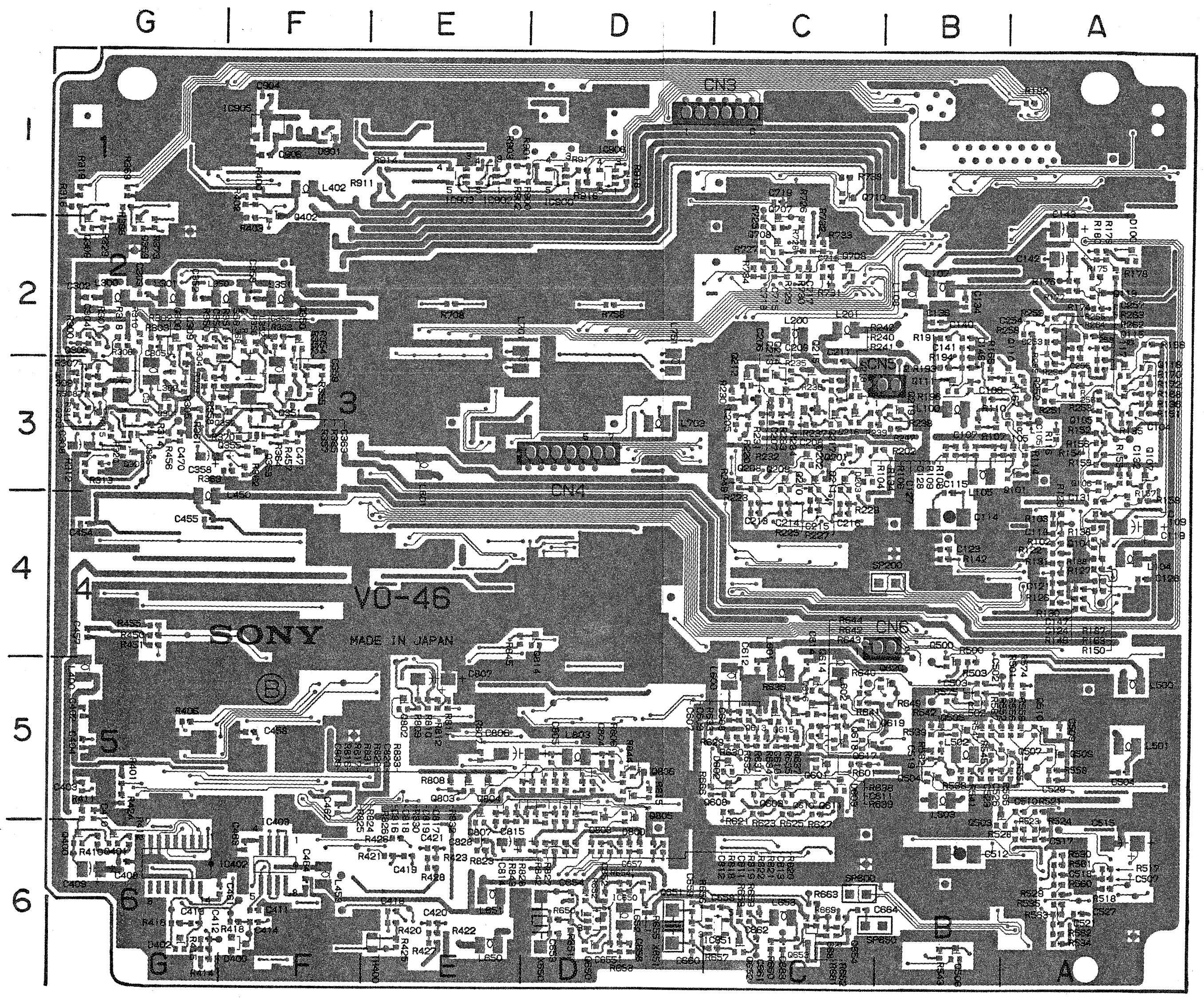
SERIAL No. 10976 and higher (UC)
30471 and higher (J)
41211 and higher (EK)

VO-46/46A BOARD


A
B
C
D
E
F
G
1
2
3
4
5
6
1-650-142-12
TPB-H V0
A NO.
LOT NO.
SONY
MADE IN JAPAN
CN1
CN2
CN3
CN4
CN5
CN6
VO-46

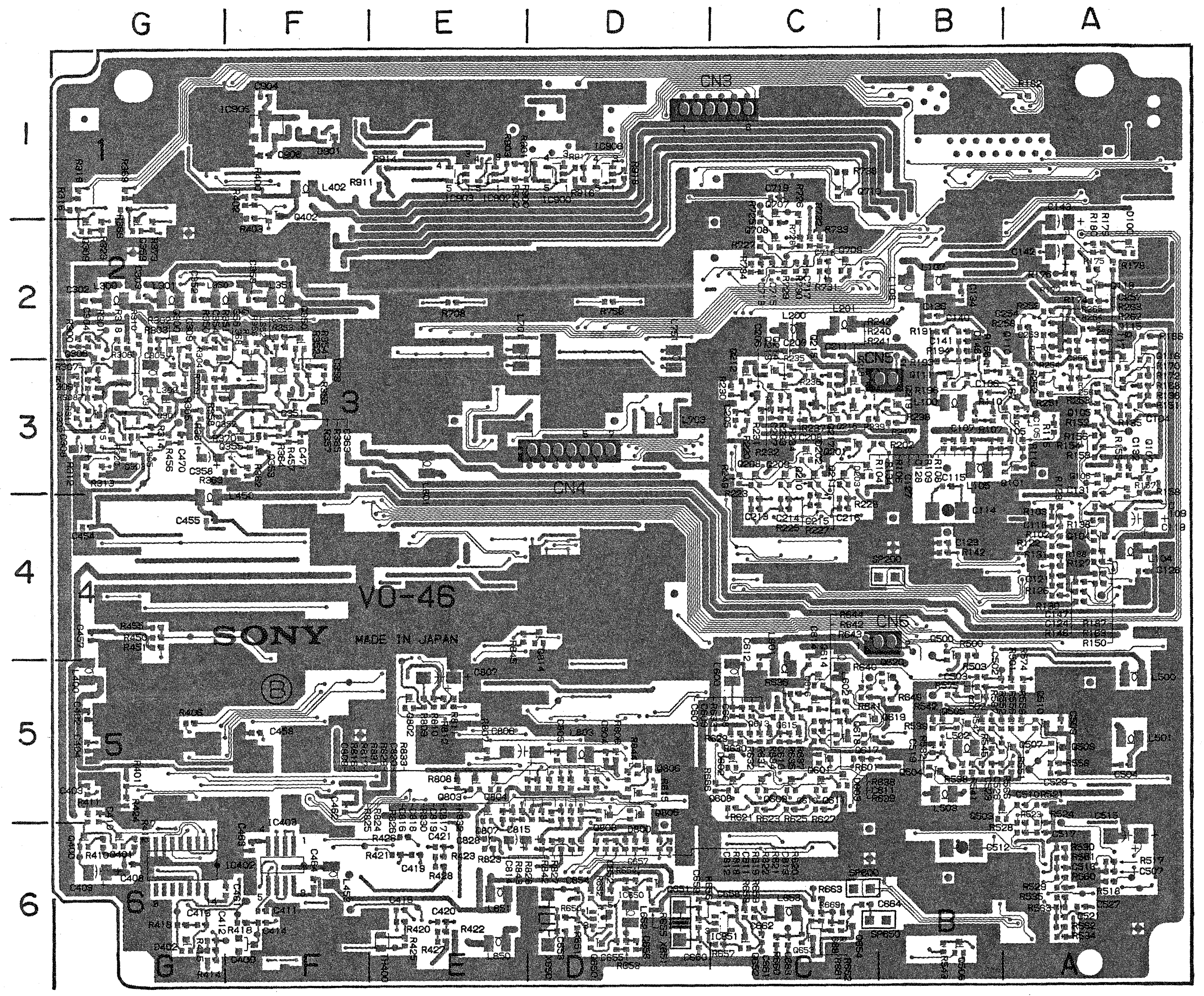
VO-46/46A -A SIDE-

1-650-142-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


G
F
E
D
C
B
A
1
2
3
4
5
6
CN3
CN4
CN5
CN6
VO-46
SONY
MADE IN JAPAN

VO-46/46A -B SIDE-

1-650-142-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)



VO-46/46A -B SIDE-
1-650-142-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

VO-46/46A(1-650-142-12)

*; B SIDE

CN1	B-1
CN2	D-1
CN3	D-1
CN4	D-3
CN5	B-3
CN6	B-4
CV200	C-4
CV201	C-4
CN202	C-4
CV203	C-4
CV600	C-5
CV601	C-5
CV602	C-5
CV603	C-5
*D100	A-2
*D400	F-6
*D402	G-6
*D800	D-5
D801	D-5
D850	D-4
D851	D-4
*D901	F-1
D902	E-1
E100	B-3
E200	B-4
E300	G-2
E400	G-2
E450	F-5
E500	A-6
E600	C-6
FL300	G-2
FL350	F-2
FL500	A-5
IC100	A-4
IC101	A-2
IC251	A-3
IC400	G-5
IC401	G-6
*IC402	G-6
*IC403	F-6
IC404	G-6
IC405	F-6
IC406	F-6
IC407	E-6
IC408	E-6
IC409	F-6
IC410	F-2
IC411	G-1
IC450	G-4
IC451	F-4
IC452	G-4
IC453	F-5
IC500	A-6
*IC650	D-6
*IC651	C-6
IC700	E-2
IC701	D-2
IC702	C-2

IC800	E-4
IC801	D-5
IC802	E-4
*IC900	D-1
*IC902	E-1
*IC903	E-1
IC904	E-1
*IC905	F-1
*IC906	D-1
LV400	F-6
*L100	B-3
L103	B-3
*L104	A-4
*L105	B-3
L106	A-3
*L107	B-2
*L108	B-2
*L200	C-2
*L201	C-2
L251	A-2
*L300	G-2
*L301	G-2
*L302	G-3
*L350	F-2
*L351	F-2
*L352	F-3
*L400	G-5
L401	G-6
*L402	F-1
*L450	G-4
L451	G-4
L452	F-5
*L453	F-6
*L500	A-5
*L501	A-5
*L502	B-5
*L503	B-5
L504	A-6
*L600	C-5
*L601	C-5
*L602	C-5
*L650	E-6
*L651	E-6
*L652	D-6
*L653	C-6
L700	E-2
*L701	E-3
L702	E-2
L750	D-2
*L751	D-3
L752	D-2
L800	D-3
*L801	E-3
L802	E-4
*L803	D-5
L850	D-4
L851	D-4
*Q101	A-3
Q102	A-4
Q103	B-4

*Q104	A-4
*Q105	A-3
*Q106	A-3
*Q107	A-3
Q108	A-4
Q109	A-4
*Q110	A-3
*Q113	A-2
Q114	A-1
*Q115	A-3
*Q116	A-3
*Q117	A-3
Q200	C-3
*Q201	C-3
Q202	C-3
Q203	C-4
Q204	C-4
Q205	C-4
Q206	C-4
Q207	C-3
*Q212	C-3
*Q213	C-3
*Q214	C-3
*Q215	C-3
*Q216	C-3
*Q217	C-3
*Q218	C-3
*Q219	B-3
*Q300	G-2
*Q301	G-3
*Q302	G-3
*Q303	G-3
Q304	G-3
*Q305	G-3
*Q306	G-3
*Q309	G-2
*Q350	F-2
*Q351	F-3
*Q352	F-3
*Q353	F-3
Q354	F-3
*Q355	F-3
*Q356	G-3
*Q359	G-2
*Q400	G-6
*Q401	G-6
*Q402	F-1
*Q500	B-5
Q501	A-5
Q502	A-5
*Q503	A-5
*Q504	B-5
*Q505	B-5
*Q506	B-6
*Q507	A-5
Q508	B-6
*Q509	A-5
*Q510	A-5
Q600	C-5
*Q601	C-5
Q602	C-5
Q603	C-6
Q604	C-6

Q605	C-6
Q606	C-6
Q607	C-5
Q612	C-5
*Q613	C-5
*Q614	C-5
*Q615	C-5
*Q616	C-5
*Q617	C-5
*Q618	C-5
*Q619	C-5
*Q620	B-5
*Q650	D-6
*Q651	D-6
*Q652	C-6
*Q653	C-6
*Q654	C-6
Q700	E-3
Q701	E-3
Q702	E-3
Q703	E-3
Q704	E-2
Q705	E-3
Q706	E-3
*Q707	C-2
*Q708	C-2
*Q709	C-2
*Q710	C-1
Q711	C-2
Q750	D-3
Q751	D-3
Q752	D-3
Q753	D-3
Q754	D-2
Q755	D-3
Q756	D-3
Q800	E-4
Q801	E-4
*Q802	E-5
*Q803	E-5
*Q804	E-5
*Q805	D-5
*Q806	D-5
*Q807	E-5
*Q808	D-5
Q809	D-5
Q810	D-5
Q811	D-5
Q812	D-5
Q813	D-5
*Q814	D-4
Q815	D-5
Q850	D-4
Q851	D-4
Q852	D-4
Q853	D-5
Q900	F-1
Q901	F-1
Q902	E-1
Q903	E-1
Q905	F-1
Q906	F-1

RV100	A-3
RV102	A-4
RV103	B-4
RV104	B-4
RV105	A-3
RV200	C-4
RV201	C-4
RV202	C-4
RV203	C-4
RV251	A-2
RV300	G-3
RV301	G-3
RV302	G-3
RV351	F-3
RV352	F-3
RV401	F-6
RV450	E-6
RV500	A-5
RV502	A-6
RV505	A-5
RV506	B-6
RV507	B-6
RV600	C-6
RV601	C-6
RV602	C-6
RV603	C-6
RV700	E-3
RV701	E-3
RV702	E-3
RV703	E-3
RV750	D-3
RV751	D-3
RV752	D-3
RV753	D-3
RV850	D-4
SP200	B-4
SP600	C-6
SP650	B-6
SS200	B-4
SS600	C-6
SS650	B-6
S700	A-1
*TH400	E-6
TP101	A-3
TP102	B-4
TP103	A-3
TP104	A-4
TP105	A-3
TP106	A-3
TP107	A-1
TP200	B-4
TP201	B-2
TP300	G-3
TP350	F-3
TP400	F-2
TP401	F-6
TP402	F-6
TP405	F-6

TP500	A-5
TP501	B-5
TP502	B-6
TP503	A-6
TP504	A-5
TP505	B-4
TP506	B-5
TP600	C-6
TP601	C-5
TP700	E-3
TP701	C-2
TP702	C-1
TP703	C-2
TP750	D-3
TP800	D-6
TP850	D-4
X400	G-5
X650	D-6
X651	D-6

*; B SIDE

VIDEO SIGNAL PROCESS

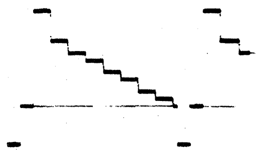
RECモード…信号発生器(テクトロニクスTSG-300または同等品)出力の75% COLOR BARSの記録状態。

PBモード…..アライメントテープCR5-1BのCOLOR BARS部分の再生状態。

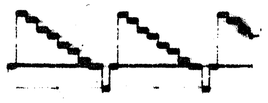
REC mode ...... **[for NTSC]**
Record the 75% color bars signal which output from the Component Television Generator (Tektronix TSG-300 or equivalent).
[for PAL]
Record the 100% color bars signal which output from the Component Television Generator (Tektronix TSG-300 or equivalent).

PB mode .... Play back the alignment tape CR5-1B (for NTSC) / CR5-1BPS (for PAL).

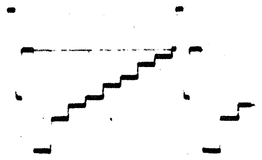
① CN1-pin8 Y 1Vp-p REC mode (NTSC)



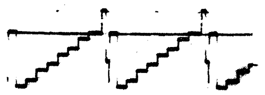
① CN1-pin8 Y 1Vp-p REC mode (PAL)



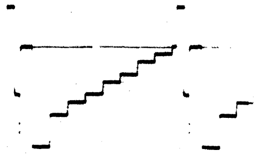
② IC100-pin2 1Vp-p REC mode (NTSC)



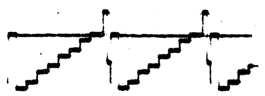
② IC100-pin2 1Vp-p REC mode (PAL)



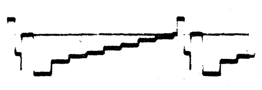
③ IC251-pin17 1Vp-p REC mode (NTSC)



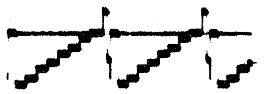
③ IC251-pin17 1Vp-p REC mode (PAL)



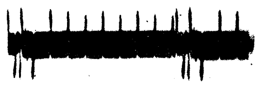
④ ■ TP101 Y 1Vp-p REC mode (NTSC)



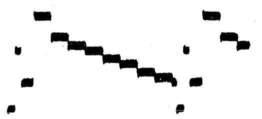
④ ■ TP101 Y 1Vp-p REC mode (PAL)



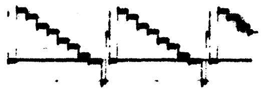
⑤ ■ TP103 REC mode 100mVp-p



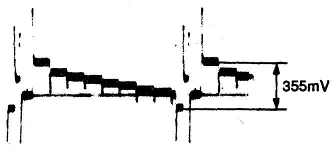
⑥ IC100-pin5 380mVp-p REC mode (NTSC)



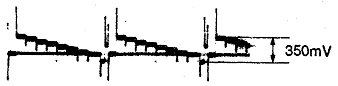
⑥ IC100-pin5 370mVp-p REC mode (PAL)



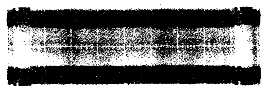
⑦ ■ TP102 REC mode (NTSC)



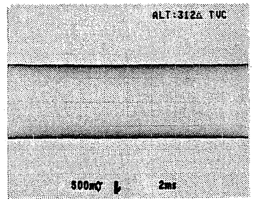
⑦ ■ TP102 REC mode (PAL)



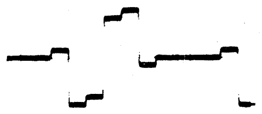
⑧ ■ TP200 Y-FM, REC mode 410mV



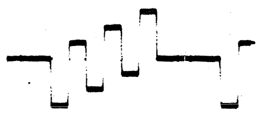
⑨ TP201 REC Y RF 1.5Vp-p REC mode



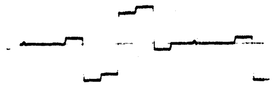
⑩ CN1-pin6 R-Y 700mVp-p REC mode



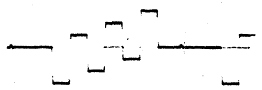
⑪ CN1-pin4 B-Y 700mVp-p REC mode



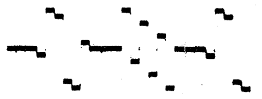
⑫ ■ TP300 R-Y, REC mode 1.34Vp-p (NTSC)
1.38Vp-p (PAL)



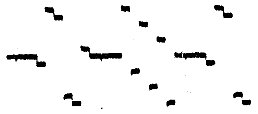
⑬ ■ TP350 B-Y, REC mode 1.34Vp-p (NTSC)
1.38Vp-p (PAL)



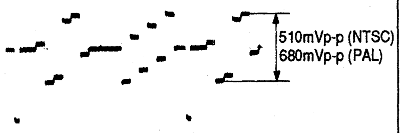
⑭ ■ TP505 CTDM 1.43Vp-p REC mode (NTSC)
1.78Vp-p REC mode (PAL)



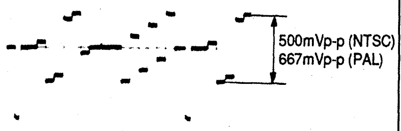
⑮ ■ TP500 CTDM 700mVp-p REC mode



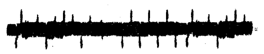
⑯ IC500-pin2 CTDM REC mode



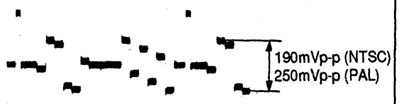
⑰ ■ TP-501 REC mode



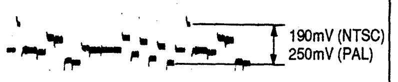
⑱ ■ TP503 REC mode 75mVp-p



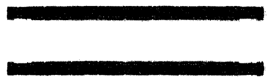
⑲ IC500-pin5 REC mode



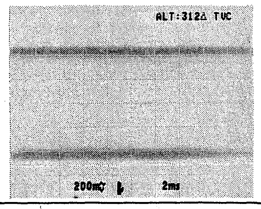
⑳ ■ TP-502 REC mode



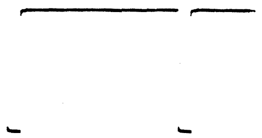
㉑ ■ TP600 C-FM, REC mode 410mVp-p



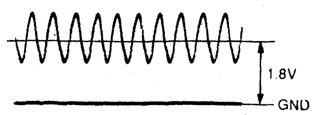
㉒ TP601 REC C RF 0.8Vp-p REC mode (NTSC)
0.9Vp-p REC mode (PAL)



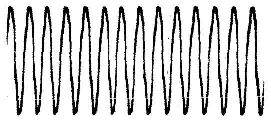
㉓ ■ TP400 COMP SYNC 5.2Vp-p REC mode (NTSC)
5.3Vp-p REC mode (PAL)



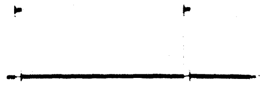
㉔ ■ TP-401 PLL VCO REC mode



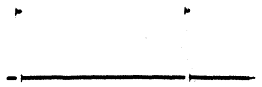
㉕ ■ TP402 R-CK, REC mode 5Vp-p



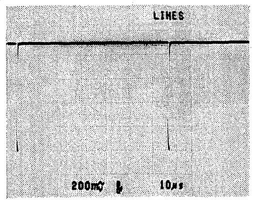
㉖ IC407-pin5 Y REF SYNC 4.9Vp-p REC mode (NTSC)
5.0Vp-p REC mode (PAL)



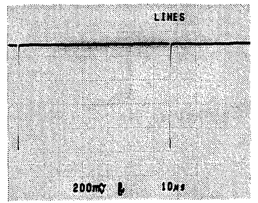
㉗ IC408-pin5 C REF SYNC 4.9Vp-p REC mode (NTSC)
5.0Vp-p REC mode (PAL)



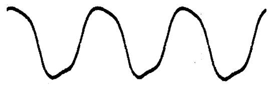
㉘ IC100-pin29 Y CLAMP 900mVp-p REC mode



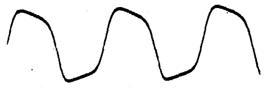
㉙ IC500-pin29 C CLAMP 900mVp-p REC mode (NTSC)
880mVp-p REC mode (PAL)



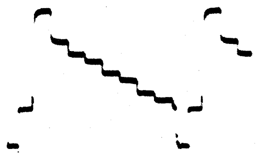
㉚ IC650-pin4 AFM PILOT 5.5Vp-p REC mode (NTSC)
5.4Vp-p REC mode (PAL)



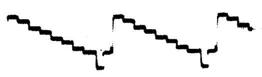
㉛ IC651-pin4 AFM PILOT 5.5Vp-p REC mode (NTSC)
5.4Vp-p REC mode (PAL)



㉜ ■ TP107 PB VIDEO 1.08Vp-p PB mode (NTSC)



㉜ ■ TP107 PB VIDEO 1Vp-p PB mode (PAL)



VIDEO SIGNAL PROCESS

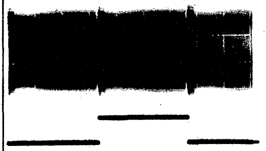
RECモード...信号発生器(テクトロニクスTSG-300または同等品)出力の75% COLOR BARSの記録状態。

PBモード.....アライメントテープCR5-1BのCOLOR BARS部分の再生状態。

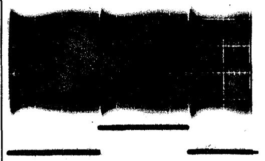
REC mode ......**[for NTSC]**
Record the 75% color bars signal which output from the Component Television Generator (Tektronix TSG-300 or equivalent).
[for PAL]
Record the 100% color bars signal which output from the Component Television Generator (Tektronix TSG-300 or equivalent).

PB mode.........Play back the alignment tape CR5-1B (for NTSC) / CR5-1BPS (for PAL).

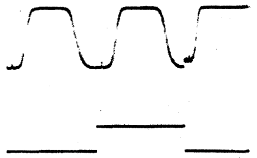
(51) ■ TP700 Y-RF 400mVp-p PB mode



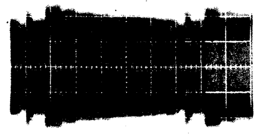
(52) ■ TP750 C-RF 400mVp-p PB mode



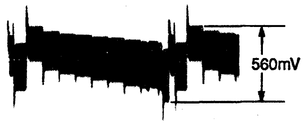
(53) ■ TP850 RF DETECT 4.9Vp-p REC PAUSE mode



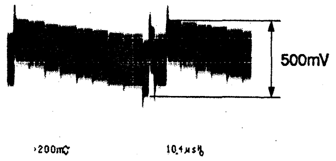
(54) IC801-pin48 PB RF 190mVp-p PB mode (NTSC)
240mVp-p PB mode (PAL)



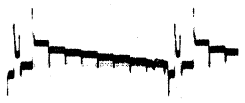
(55) IC801-pin12 DEMOD OUTPUT PB mode (NTSC)



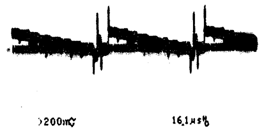
(55) IC801-pin12 DEMOD OUTPUT PB mode (PAL)



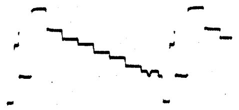
(56) IC801-pin40 230mVp-p PB mode (NTSC)



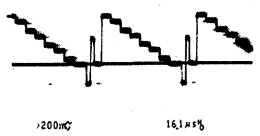
(56) IC801-pin40 230mVp-p PB mode (PAL)



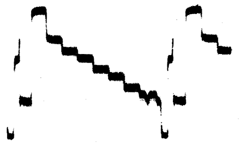
(57) IC801-pin35 800mVp-p PB mode (NTSC)



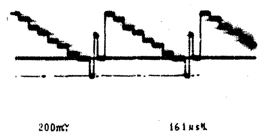
(57) IC801-pin35 800mVp-p PB mode (PAL)



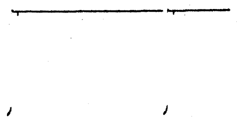
(58) IC801-pin37 520mVp-p PB mode (NTSC)



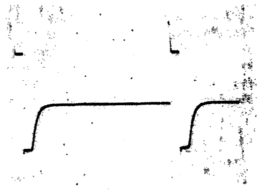
(58) IC801-pin37 530mVp-p PB mode (PAL)



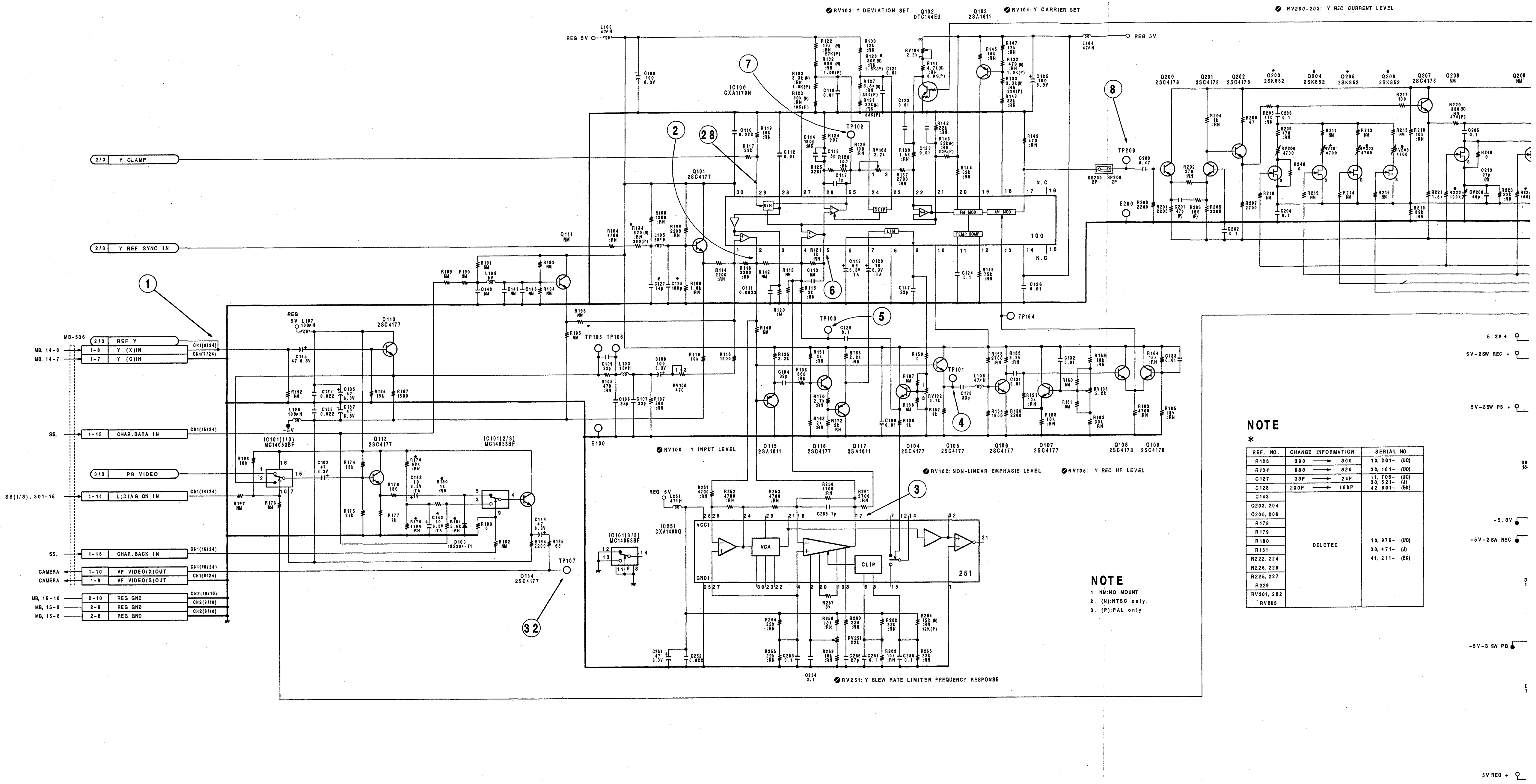
(59) IC801-pin5 CLAMP PULSE 2.1Vp-p PB mode



(60) IC801-pin6 5Vp-p PB mode



VIDEO SIGNAL PROCESS


RV103: Y DEVIATION SET
Q102 DTC144EU
Q103 2SA1611
RV104: Y CARRIER SET
RV200-203: Y REC CURRENT LEVEL
REG 5V
L103 47μH
L104 47μH
IC100 CXA1179N
TP102
TP200
TP101
TP103
TP104
TP105
TP106
TP107
E100
E200
Q200 2SC4178
Q201 2SC4178
Q202 2SC4178
Q203 2SK852
Q204 2SK852
Q205 2SK852
Q206 2SK852
Q207 2SC4178
Q208 NM
Q209 NM
Q101 2SC4177
Q111 NM
Q110 2SC4177
Q113 2SC4177
Q114 2SC4177
Q115 2SA1611
Q116 2SC4177
Q117 2SA1611
Q104 2SC4177
Q105 2SC4177
Q106 2SC4177
Q107 2SC4177
Q108 2SC4178
Q109 2SC4178
IC101(1/3) MC14053BF
IC101(2/3) MC14053BF
IC101(3/3) MC14053BF
IC251 CXA1480Q
D102 1SS304-T1
S/H
CLIP
LIM
FM MOD
AM MOD
TEMP COMP
VCA
CLIP
VCC1
GND1
251
100
N.C
2/3 Y CLAMP
2/3 Y REF SYNC IN
MB-506
2/3 REF Y
MB, 14-8 1-8 Y (X)IN CN1(8/24)
MB, 14-7 1-7 Y (G)IN CN1(7/24)
SS, 1-15 CHAR.DATA IN CN1(15/24)
3/3 PB VIDEO
SS(1/3), 301-15 1-14 L:DIAG ON IN CN1(14/24)
SS, 1-16 CHAR.BACK IN CN1(16/24)
CAMERA 1-10 VF VIDEO(X)OUT CN1(10/24)
CAMERA 1-9 VF VIDEO(G)OUT CN1(9/24)
MB, 15-10 2-10 REG GND CN2(10/10)
MB, 15-9 2-9 REG GND CN2(9/10)
MB, 15-8 2-8 REG GND CN2(8/10)
RV100: Y INPUT LEVEL
RV102: NON-LINEAR EMPHASIS LEVEL
RV105: Y REC HF LEVEL
RV251: Y SLEW RATE LIMITER FREQUENCY RESPONSE
SS200 2P
SP200 2P
5.3V+
5V-2SW REC +
5V-3SW PB +
-5.3V
-5V-2 SW REC
-5V-3 SW PB
5V REG +
①
②
③
④
⑤
⑥
⑦
⑧
(28)
(32)

NOTE

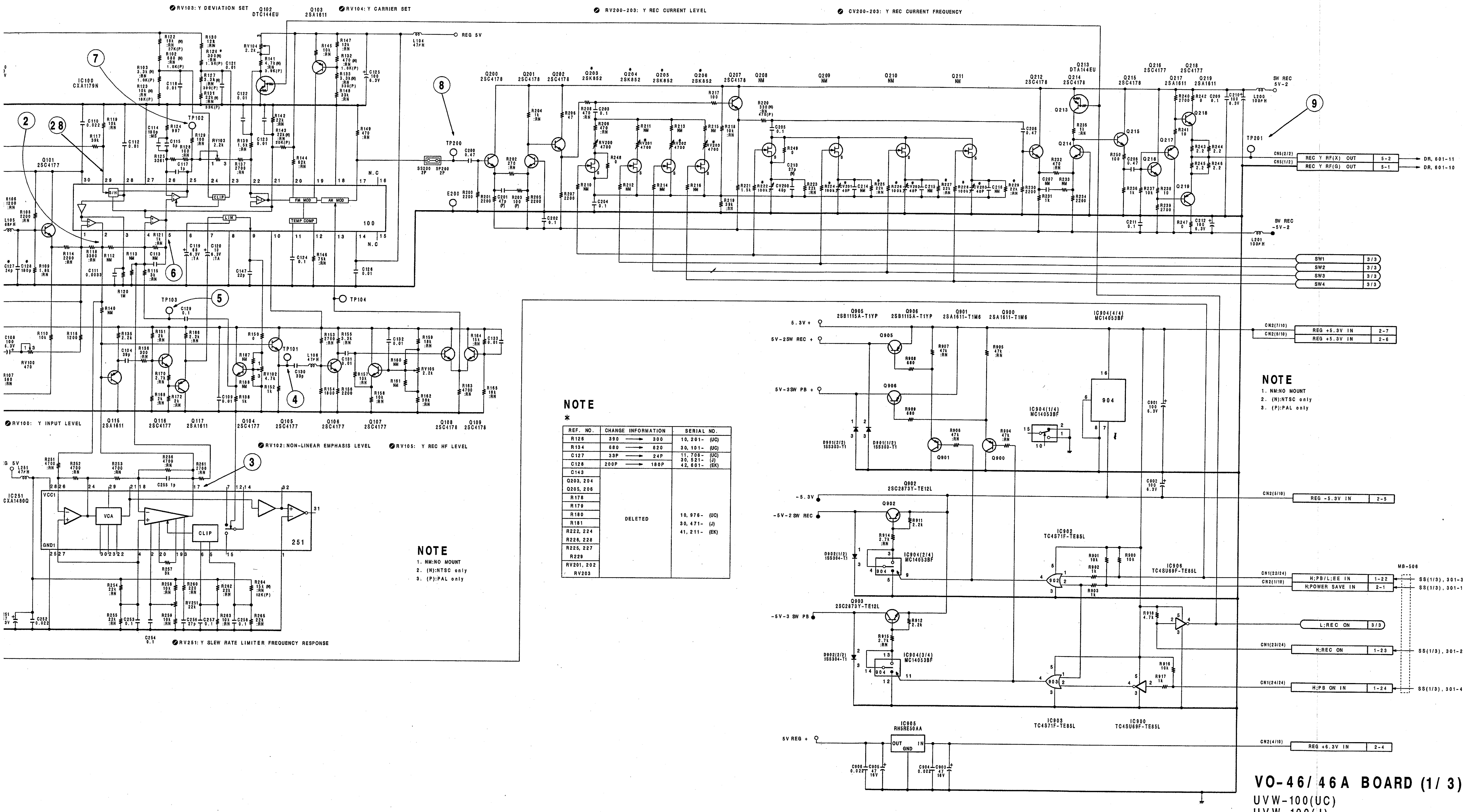
1. NM:NO MOUNT
2. (N):NTSC only
3. (P):PAL only

NOTE

*

REF. NO.	CHANGE INFORMATION	SERIAL NO.
R126	390 → 300	10, 201- (UC) 30, 101- (UC)
R134	680 → 620	
C127	33P → 24P	11, 706- (UC) 30, 521- (J) 42, 601- (EK)
C128	200P → 180P	
C143	DELETED	10, 976- (UC) 30, 471- (J) 41, 211- (EK)
Q203, 204 Q205, 206		
R178		
R179		
R180		
R181		
R222, 224 R226, 228		
R225, 227 R229		
RV201, 202 RV203		

UVW-100 (J)
UVW-100 (UC)
UVW-100P (EK)


RV103: Y DEVIATION SET
RV104: Y CARRIER SET
RV200-203: Y REC CURRENT LEVEL
CV200-203: Y REC CURRENT FREQUENCY
RV100: Y INPUT LEVEL
RV102: NON-LINEAR EMPHASIS LEVEL
RV105: Y REC HF LEVEL
RV251: Y SLEW RATE LIMITER FREQUENCY RESPONSE
IC100 CXA1179N
IC251 CXA1480Q
REG 5V
SW REC 5V-2
SW REC -5V-2
REC Y RF(X) OUT 5-2
REC Y RF(G) OUT 5-1
DR, 601-11
DR, 601-10
SW1 3/3
SW2 3/3
SW3 3/3
SW4 3/3
REG +5.3V IN 2-7
REG +5.3V IN 2-6
REG -5.3V IN 2-5
H;PB/L;EE IN 1-22
H;POWER SAVE IN 2-1
L;REC ON 3/3
H;REC ON 1-23
H;PB ON IN 1-24
REG +6.3V IN 2-4
SS(1/3), 301-3
SS(1/3), 301-1
SS(1/3), 301-2
SS(1/3), 301-4
MB-506
1
2
3
4
5
E
F
G
H
I
J
K
L

NOTE
1. NM:NO MOUNT
2. (N):NTSC only
3. (P):PAL only

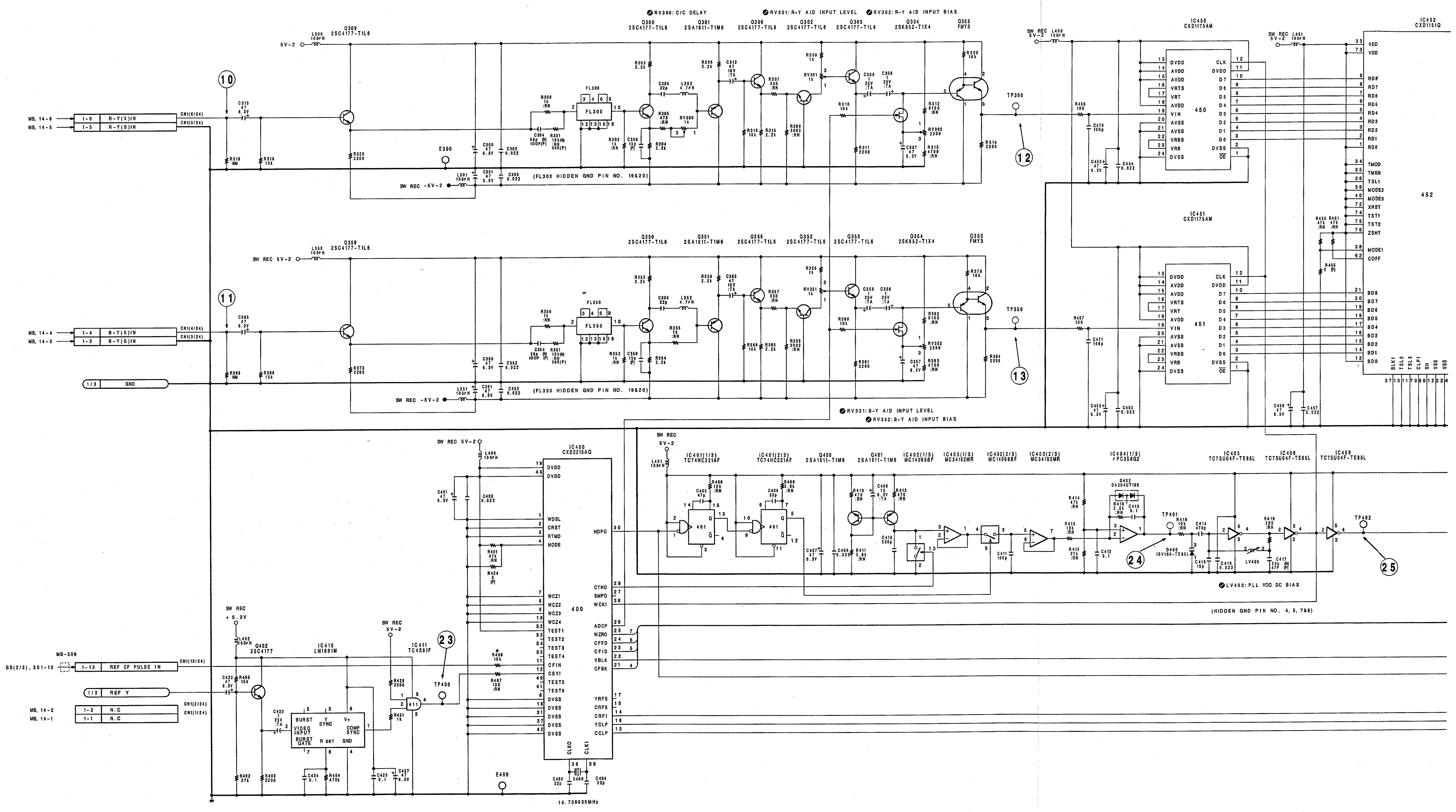
NOTE
*

REF. NO.	CHANGE INFORMATION	SERIAL NO.
R126	390 ⟶ 300	10, 201- (UC) 30, 101- (UC)
R134	680 ⟶ 620	
C127	33P ⟶ 24P	11, 706- (UC) 30, 521- (J) 42, 601- (EK)
C128	200P ⟶ 180P	
C143	DELETED	10, 976- (UC) 30, 471- (J) 41, 211- (EK)
Q203, 204 Q205, 206		
R178		
R179		
R180		
R181		
R222, 224 R226, 228		
R225, 227 R229		
RV201, 202 RV203		

NOTE
1. NM:NO MOUNT
2. (N):NTSC only
3. (P):PAL only

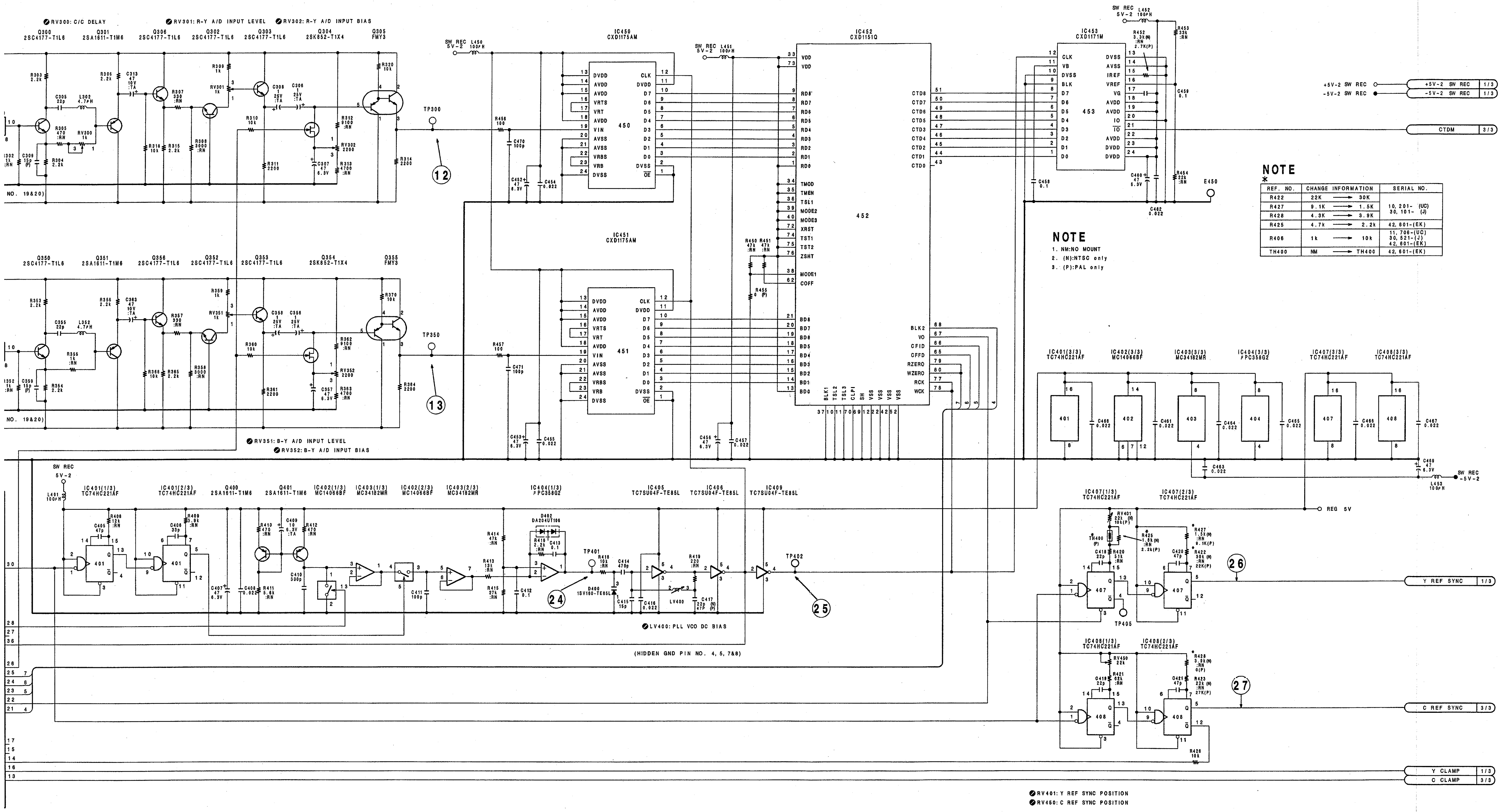
VO-46/ 46A BOARD (1/ 3)
UVW-100(UC)
UVW-100(J)
UVW-100P(EK)
B-¥UVW100-VO46/M

VIDEO SIGNAL PROCESS


1
2
3
4
5
RV300: C/C DELAY
RV301: R-Y A/D INPUT LEVEL
RV302: R-Y A/D INPUT BIAS
Q309 2SC4177-T1L6
Q300 2SC4177-T1L6
Q301 2SA1611-T1M6
Q306 2SC4177-T1L6
Q302 2SC4177-T1L6
Q303 2SC4177-T1L6
Q304 2SK852-T1X4
Q305 FMY3
5V-2
L300 100μH
FL300
(FL300 HIDDEN GND PIN NO. 19&20)
SW REC -5V-2
E300
TP300
⑩
⑫
MB, 14-6
MB, 14-5
1-6 R-Y(X)IN
1-5 R-Y(G)IN
CN1(6/24)
CN1(5/24)
IC450 CXD1175AM
IC451 CXD1175AM
IC452 CXD1151Q
SW REC 5V-2
L450 100μH
L451 100μH
DVDD AVDD AVDD VRTS VRT AVDD VIN AVSS AVSS VRBS VRB DVSS
CLK DVDD D7 D6 D5 D4 D3 D2 D1 D0 DVSS OE
450
451
452
VDD VDD RD8 RD7 RD6 RD5 RD4 RD3 RD2 RD1 RD0
TMOD TMEN TSL1 MODE2 MODE3 XRST TST1 TST2 ZSHT
MODE1 COFF
BD8 BD7 BD6 BD5 BD4 BD3 BD2 BD1 BD0
BLK1 TSL2 TSL3 CLPI SH VSS VSS
Q359 2SC4177-T1L6
Q350 2SC4177-T1L6
Q351 2SA1611-T1M6
Q356 2SC4177-T1L6
Q352 2SC4177-T1L6
Q353 2SC4177-T1L6
Q354 2SK852-T1X4
Q355 FMY3
SW REC 5V-2
L350 100μH
FL350
(FL350 HIDDEN GND PIN NO. 19&20)
TP350
⑪
⑬
MB, 14-4
MB, 14-3
1-4 B-Y(X)IN
1-3 B-Y(G)IN
CN1(4/24)
CN1(3/24)
1/3 GND
RV351: B-Y A/D INPUT LEVEL
RV352: B-Y A/D INPUT BIAS
IC400 CXD2215AQ
400
SW REC 5V-2
L400 100μH
WDSL CRST RTMD MODE WCZ1 WCZ2 WCZ3 WCZ4 TEST1 TEST2 TEST3 TEST4 CFIN CSYI TEST5 TEST6 DVSS DVSS DVSS DVSS DVSS
HDPO CTHO SMPO WCKI ADCP WZRO CFFD CFID VBLK CFBK YRFS CRFS CRFI YCLP CCLP
CLKO CLKI
X400
10.738635MHz
E400
MB-506
SS(2/3), 301-13
1-13 REF CF PULSE IN
CN1(13/24)
1/3 REF Y
MB, 14-2
MB, 14-1
1-2 N.C
1-1 N.C
CN1(2/24)
CN1(1/24)
SW REC +5.3V
L402 100μH
Q402 2SC4177
IC410 LM1881M
BURST Y SYNC V+
VIDEO INPUT COMP SYNC
BURST GATE R DET GND
IC411 TC4S81F
411
SW REC 5V-2
TP400
㉓
SW REC 5V-2
L401 100μH
IC401(1/3) TC74HC221AF
IC401(2/3) TC74HC221AF
Q400 2SA1611-T1M6
Q401 2SA1611-T1M6
IC402(1/3) MC14066BF
IC403(1/3) MC34182MR
IC402(2/3) MC14066BF
IC403(2/3) MC34182MR
IC404(1/3) μPC358G2
D402 DA204UT106
IC405 TC7SU04F-TE85L
IC406 TC7SU04F-TE85L
IC409 TC7SU04F-TE85L
TP401
TP402
D400 1SV160-TE85L
LV400
㉔
㉕
LV400: PLL VCO DC BIAS
(HIDDEN GND PIN NO. 4, 5, 7&8)

A | B | C | D | E | F | G | H

VO-46/46A(2/3)


RV300: C/C DELAY
RV301: R-Y A/D INPUT LEVEL
RV302: R-Y A/D INPUT BIAS
RV351: B-Y A/D INPUT LEVEL
RV352: B-Y A/D INPUT BIAS
LV400: PLL VCO DC BIAS
RV401: Y REF SYNC POSITION
RV450: C REF SYNC POSITION
(HIDDEN GND PIN NO. 4, 5, 7&8)
IC450 CXD1175AM
IC451 CXD1175AM
IC452 CXD1151Q
IC453 CXD1171M
IC401(3/3) TC74HC221AF
IC402(3/3) MC14066BF
IC403(3/3) MC34182MR
IC404(3/3) FPC358G2
IC407(3/3) TC74HC221AF
IC408(3/3) TC74HC221AF
IC405 TC7SU04F-TE85L
IC406 TC7SU04F-TE85L
IC409 TC7SU04F-TE85L
TP300
TP350
TP401
TP402
TP405
E450
12
13
24
25
26
27
+5V-2 SW REC 1/3
-5V-2 SW REC 1/3
CTDM 3/3
Y REF SYNC 1/3
C REF SYNC 3/3
Y CLAMP 1/3
C CLAMP 3/3
REG 5V

NOTE

1. NM:NO MOUNT
2. (N):NTSC only
3. (P):PAL only

NOTE
*

REF. NO.	CHANGE INFORMATION	SERIAL NO.
R422	22K ⟶ 30K	10, 201- (UC) 30, 101- (J)
R427	9.1K ⟶ 1.5K	
R428	4.3K ⟶ 3.9K	
R425	4.7k ⟶ 2.2k	42, 601-(EK)
R406	1k ⟶ 10k	11, 706-(UC) 30, 521-(J) 42, 601-(EK)
TH400	NM ⟶ TH400	42, 601-(EK)

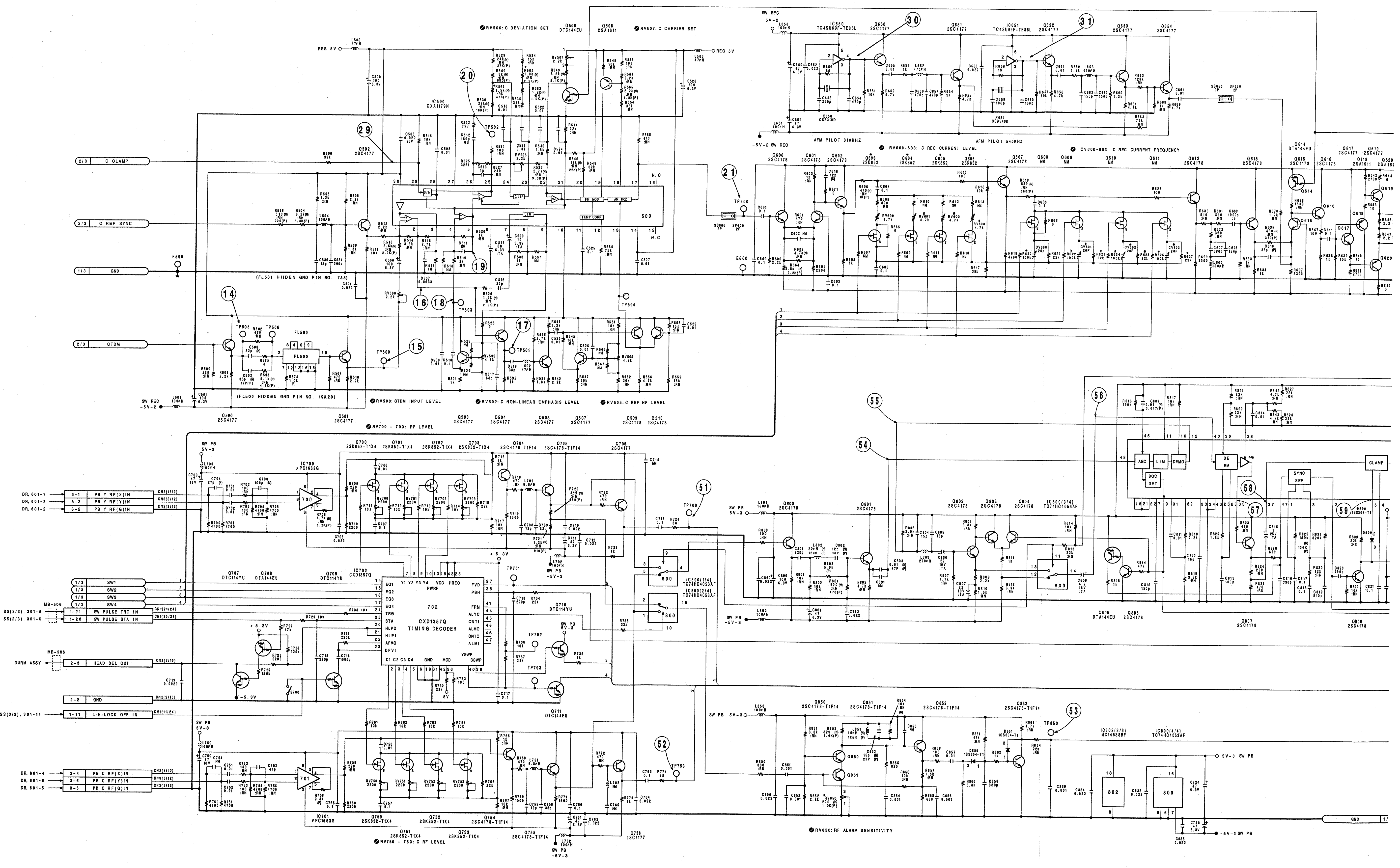
VO-46/ 46A BOARD (2/ 3)

UVW-100(UC)
UVW-100(J)
UVW-100P(EK)

B-¥UVW100-VO46/M

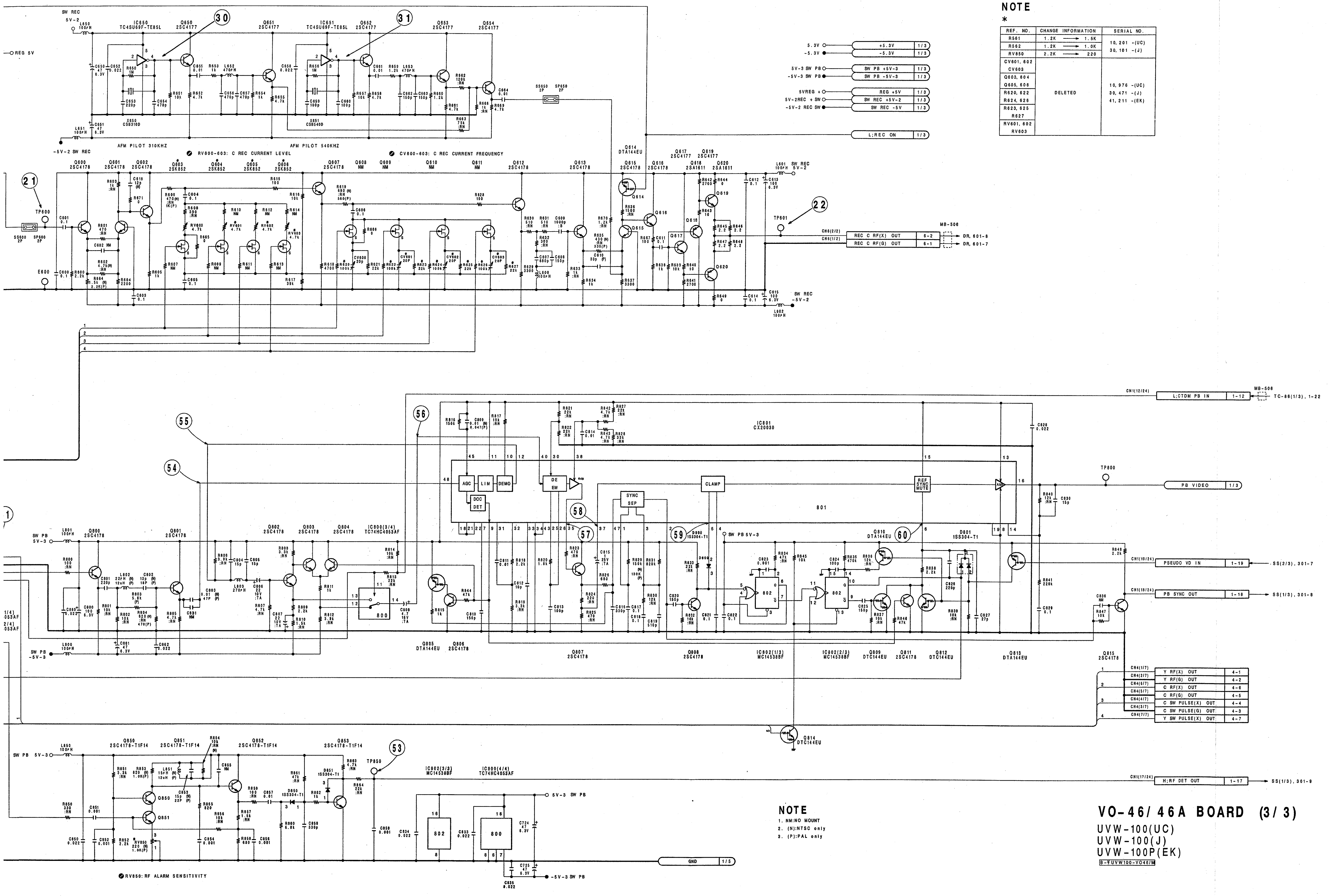
]

VIDEO SIGNAL PROCESS


RV506: C DEVIATION SET
RV507: C CARRIER SET
IC500 CXA1179N
Q502 2SC4177
Q506 DTC144EU
Q508 2SA1611
REG 5V
2/3 C CLAMP
2/3 C REF SYNC
1/3 GND
2/3 CTDM
E500
(FL501 HIDDEN GND PIN NO. 7&8)
(FL500 HIDDEN GND PIN NO. 19&20)
FL500
FM MOD
AM MOD
TEMP COMP
SW REC -5V-2
Q500 2SC4177
Q501 2SC4177
Q503 2SC4177
Q504 2SC4177
Q505 2SC4177
Q507 2SC4177
Q509 2SC4178
Q510 2SC4178
RV500: CTDM INPUT LEVEL
RV502: C NON-LINEAR EMPHASIS LEVEL
RV505: C REF HF LEVEL
TP500
TP501
TP502
TP503
TP504
TP505
TP506
SW REC 5V-2
IC650 TC4SU69F-TE85L
IC651 TC4SU69F-TE85L
Q650 2SC4177
Q651 2SC4177
Q652 2SC4177
Q653 2SC4177
Q654 2SC4177
AFM PILOT 310KHZ
AFM PILOT 540KHZ
-5V-2 SW REC
RV600-603: C REC CURRENT LEVEL
CV600-603: C REC CURRENT FREQUENCY
Q600 2SC4178
Q601 2SC4178
Q602 2SC4178
Q603 2SK852
Q604 2SK852
Q605 2SK852
Q606 2SK852
Q607 2SC4178
Q612 2SC4178
Q613 2SC4178
Q614 DTA144EU
Q615 2SC4178
Q616 2SC4178
Q617 2SC4177
Q619 2SC4177
TP600
E600
RV700 - 703: RF LEVEL
SW PB 5V-3
IC700 μPC1663G
Q700 2SK852-T1X4
Q701 2SK852-T1X4
Q702 2SK852-T1X4
Q703 2SK852-T1X4
Q704 2SC4178-T1F14
Q705 2SC4178-T1F14
Q706 2SC4177
DR, 601-1
DR, 601-3
DR, 601-2
3-1 PB Y RF(X)IN
3-3 PB Y RF(Y)IN
3-2 PB Y RF(G)IN
TP700
Q707 DTC114YU
Q708 DTA144EU
Q709 DTC114YU
IC702 CXD1357Q
702 CXD1357Q TIMING DECODER
1/3 SW1
1/3 SW2
1/3 SW3
1/3 SW4
MB-506
SS(2/3), 301-5
SS(2/3), 301-6
1-21 SW PULSE TRG IN
1-20 SW PULSE STA IN
DURM ASSY
2-3 HEAD SEL OUT
2-2 GND
SS(3/3), 301-14
1-11 L:H-LOCK OFF IN
Q710 DTC114YU
Q711 DTC144EU
TP701
TP702
TP703
IC800(1/4) TC74HC4053AF
IC800(2/4) TC74HC4053AF
IC800(3/4) TC74HC4053AF
IC800(4/4) TC74HC4053AF
IC802(3/3) MC14538BF
Q800 2SC4178
Q801 2SC4178
Q802 2SC4178
Q803 2SC4178
Q804 2SC4178
Q805 DTA144EU
Q806 2SC4178
Q807 2SC4178
Q808 2SC4178
AGC
LIM
DEMO
DOC DET
DE EM
SYNC SEP
CLAMP
DR, 601-4
DR, 601-6
DR, 601-5
3-4 PB C RF(X)IN
3-6 PB C RF(Y)IN
3-5 PB C RF(G)IN
IC701 μPC1663G
Q750 2SK852-T1X4
Q751 2SK852-T1X4
Q752 2SK852-T1X4
Q753 2SK852-T1X4
Q754 2SC4178-T1F14
Q755 2SC4178-T1F14
Q756 2SC4177
RV750 - 753: C RF LEVEL
TP750
Q850 2SC4178-T1F14
Q851 2SC4178-T1F14
Q852 2SC4178-T1F14
Q853 2SC4178-T1F14
RV850: RF ALARM SENSITIVITY
TP850
-5V-3 SW PB
GND
(14)
(15)
(16)
(17)
(18)
(19)
(20)
(21)
(29)
(30)
(31)
(51)
(52)
(53)
(54)
(55)
(56)
(57)
(58)
(59)

UVW-100 (J)
UVW-100 (UC)
UVW-100P (EK)

A | B | C | D | E | F | G | H |


SW REC 5V-2
-REG 5V
IC650 TC4SU69F-TE85L
Q650 2SC4177
(30)
Q651 2SC4177
IC651 TC4SU69F-TE85L
Q652 2SC4177
(31)
Q653 2SC4177
Q654 2SC4177
X650 CSB310D
X651 CSB540D
SS650 2P
SP650 2P
-5V-2 SW REC
AFM PILOT 310KHZ
AFM PILOT 540KHZ
RV600-603: C REC CURRENT LEVEL
CV600-603: C REC CURRENT FREQUENCY
5.3V
-5.3V
+5.3V
-5.3V
5V-3 SW PB
-5V-3 SW PB
SW PB +5V-3
SW PB -5V-3
5VREG +
5V-2REC + SW
-5V-2 REC SW
REG +5V
SW REC +5V-2
SW REC -5V
L;REC ON
1/3
(21)
TP600
SS600 2P
SP600 2P
E600
Q600 2SC4178
Q601 2SC4178
Q602 2SC4178
Q603 2SK852
Q604 2SK852
Q605 2SK852
Q606 2SK852
Q607 2SC4178
Q608 NM
Q609 NM
Q610 NM
Q611 NM
Q612 2SC4178
Q613 2SC4178
Q614 DTA144EU
Q615 2SC4178
Q616 2SC4178
Q617 2SC4177
Q618 2SA1611
Q619 2SC4177
Q620 2SA1611
L601 100μH
SW REC 5V-2
(22)
TP601
CN6(2/2)
CN6(1/2)
REC C RF(X) OUT
REC C RF(G) OUT
6-2
6-1
MB-506
DR, 601-6
DR, 601-7
SW REC -5V-2
L602 100μH
1
2
3
4
(55)
(56)
(54)
(58)
(57)
(59)
(60)
(1)
IC801 CX20030
AGC
LIM
DEMO
DOC DET
DE EM
SYNC SEP
CLAMP
REF SYNC MUTE
801
CN1(12/24)
L;CTDM PB IN
1-12
MB-506
TC-86(1/3), 1-22
TP800
PB VIDEO
SW PB 5V-3
Q800 2SC4178
Q801 2SC4178
Q802 2SC4178
Q803 2SC4178
Q804 2SC4178
IC800(3/4) TC74HC4053AF
800
SW PB -5V-3
Q805 DTA144EU
Q806 2SC4178
Q807 2SC4178
Q808 2SC4178
IC802(1/3) MC14538BF
IC802(2/3) MC14538BF
Q809 DTC144EU
Q810 DTA144EU
Q811 2SC4178
Q812 DTC144EU
Q813 DTA144EU
D801 1SS304-T1
D800 1SS304-T1
802
SW PB 5V-3
CN1(19/24)
PSEUDO VD IN
1-19
SS(2/3), 301-7
CN1(18/24)
PB SYNC OUT
1-18
SS(1/3), 301-8
Q815 2SC4178
CN4(1/7)
CN4(2/7)
CN4(6/7)
CN4(5/7)
CN4(4/7)
CN4(3/7)
CN4(7/7)
Y RF(X) OUT
Y RF(G) OUT
C RF(X) OUT
C RF(G) OUT
C SW PULSE(X) OUT
C SW PULSE(G) OUT
Y SW PULSE(X) OUT
4-1
4-2
4-6
4-5
4-4
4-3
4-7
Q814 DTC144EU
SW PB 5V-3
Q850 2SC4178-T1F14
Q851 2SC4178-T1F14
Q852 2SC4178-T1F14
Q853 2SC4178-T1F14
(53)
TP850
IC802(3/3) MC14538BF
IC800(4/4) TC74HC4053AF
5V-3 SW PB
-5V-3 SW PB
CN1(17/24)
H;RF DET OUT
1-17
SS(1/3), 301-9
GND
1/5
RV850: RF ALARM SENSITIVITY
1
2
3
4
5
F
G
H
I
J
K
L

NOTE

*

REF. NO.	CHANGE INFORMATION	SERIAL NO.
R561	1.2K → 1.5K	10, 201 -(UC) 30, 101 -(J)
R562	1.2K → 1.0K	
RV850	2.2K → 220	
CV601, 602 CV603	DELETED	10, 976 -(UC) 30, 471 -(J) 41, 211 -(EK)
Q603, 604 Q605, 606		
R620, 622 R624, 626		
R623, 625 R627		
RV601, 602 RV603		

NOTE

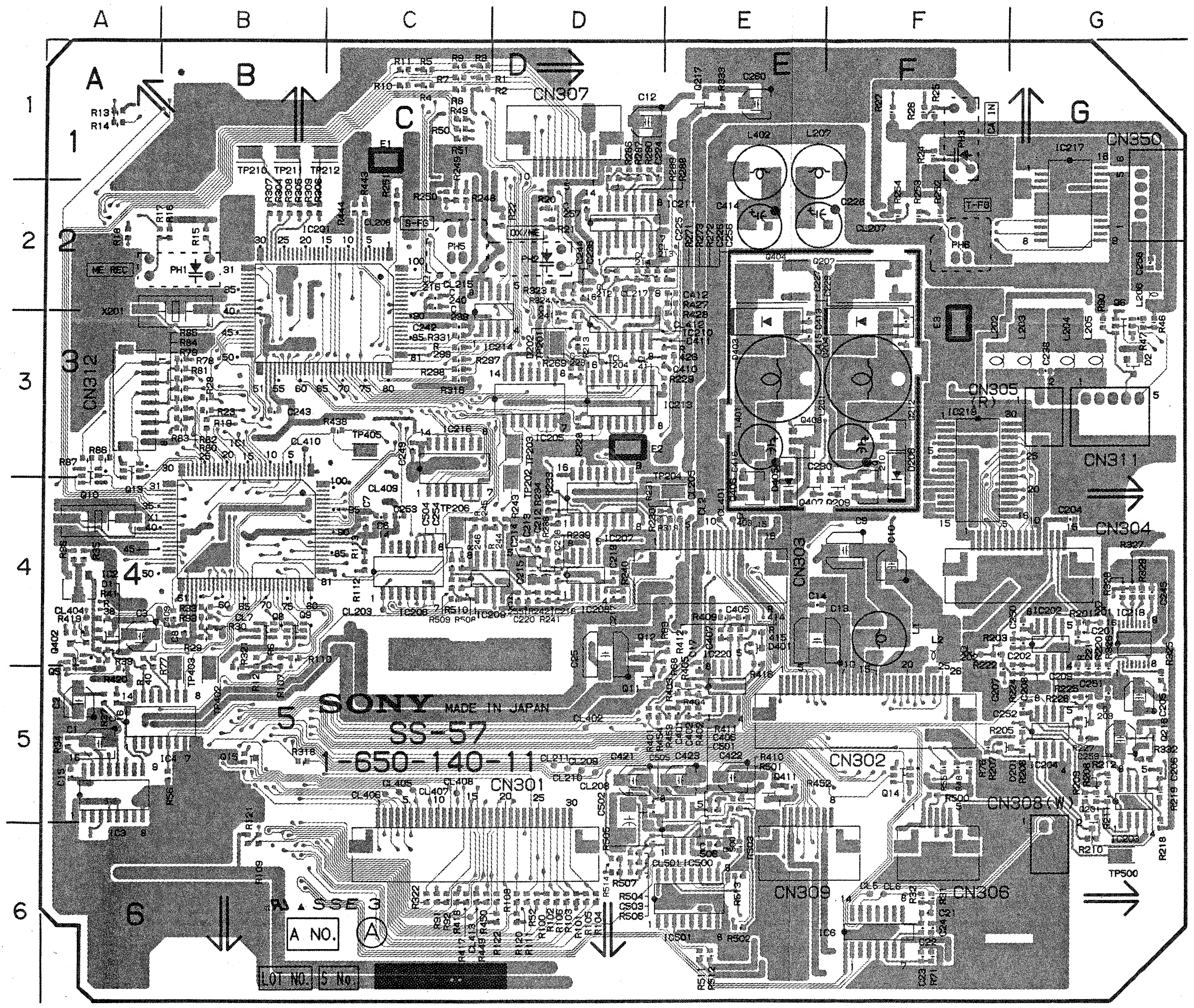
1. NM:NO MOUNT
2. (N):NTSC only
3. (P):PAL only

VO-46/46A BOARD (3/3)

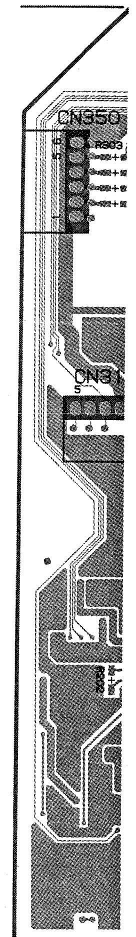
UVW-100(UC)
UVW-100(J)
UVW-100P(EK)
B-¥UVW100-VO46/M

SS-57/57A BOARD

SERIAL No. 10001-11365 (UC)
30001-30490 (J)
40001-41800 (EK)


A
B
C
D
E
F
G
1
2
3
4
5
6
CN307
CN350
CN312
CN305
CN311
CN304
CN303
CN302
CN301
CN308
CN309
CN306
SONY MADE IN JAPAN
SS-57
1-650-140-11
A NO.
LOT NO.
S No.

SS-57/57A -A SIDE-
1-650-140-11,-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)



SS-57/57A(1-650-140-11,-12)

* ; B SIDE

CN301	C-6
CN302	F-5
CN303	E-4
CN304	G-4
CN305	G-3
CN306	F-6
CN307	D-1
CN308	G-6
CN309	E-6
CN311	G-3
CN350	G-2
D1	A-4
D2	G-3
D201	G-5
D202	D-3
D203	G-5
D204	F-3
*D205	F-4
D206	F-3
D401	E-4
D403	E-3
*D404	E-3
D405	E-4
E1	C-1
E2	D-3
E3	F-3
IC1	B-3
IC2	A-4
IC3	A-5
IC4	B-5
IC6	F-6
IC201	B-2
IC202	G-4
IC203	G-5
IC204	G-5
IC205	D-3
IC206	C-4
IC207	D-4
IC208	D-4
IC209	D-4
IC210	D-3
IC211	D-2
IC213	D-3
IC214	D-3
IC216	C-3
IC217	G-2
IC218	G-4
IC219	F-3
IC220	E-5
IC500	E-6
IC501	E-6
L1	F-4
L2	F-4
L201	F-3
L202	F-3
L203	G-3
L204	G-3
L205	G-3
L206	G-2
L207	E-1
L401	E-3
L402	E-1
*PH1	B-2
*PH2	D-2
*PH3	F-1
*PH5	C-2
*PH6	F-2
*Q1	A-2
*Q2	D-2
*Q3	F-1
Q5	A-4
Q6	G-3
Q8	B-4
Q9	B-4
Q11	D-5
Q12	D-4
Q14	F-5
Q201	G-6
*Q203	C-2
*Q204	F-2
Q207	F-2
*Q208	F-4
Q209	F-4
Q210	F-4
*Q211	F-3
Q212	F-3
*Q213	D-2
*Q214	F-2
*Q215	F-2
Q216	G-5
Q217	E-1
Q402	A-4
Q404	E-2
*Q405	E-4
Q406	E-4
Q407	E-4
Q408	E-3
*Q409	E-2
*Q410	E-2
Q411	E-5
*Q412	E-4
Q500	E-6
*Q501	E-6
*Q502	E-6
*S1	A-1
TP201	D-3
TP202	D-4
TP203	D-3
TP204	E-4
TP206	C-4
TP210	B-1
TP211	B-1
TP212	C-1
TP402	B-5
TP403	B-5
TP405	C-3
TP500	G-6
X1	A-4
X201	B-3

* ; B SIDE

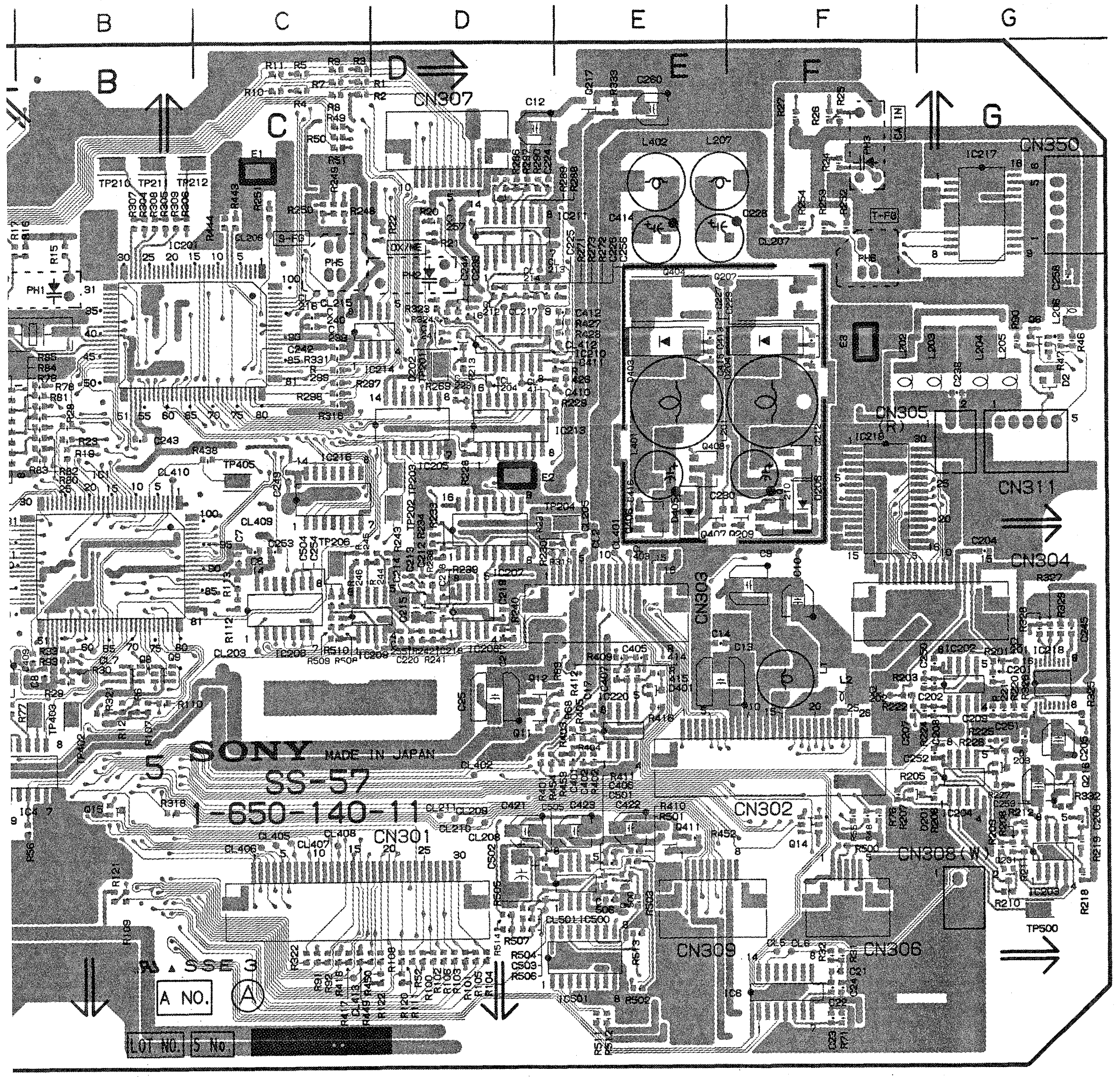
SS-57

* ; B

CN301
CN302
CN303
CN304
CN305
CN306
CN307
CN308
CN309
CN311
CN350

D1
D2
D201
D202
D203
D204
*D205

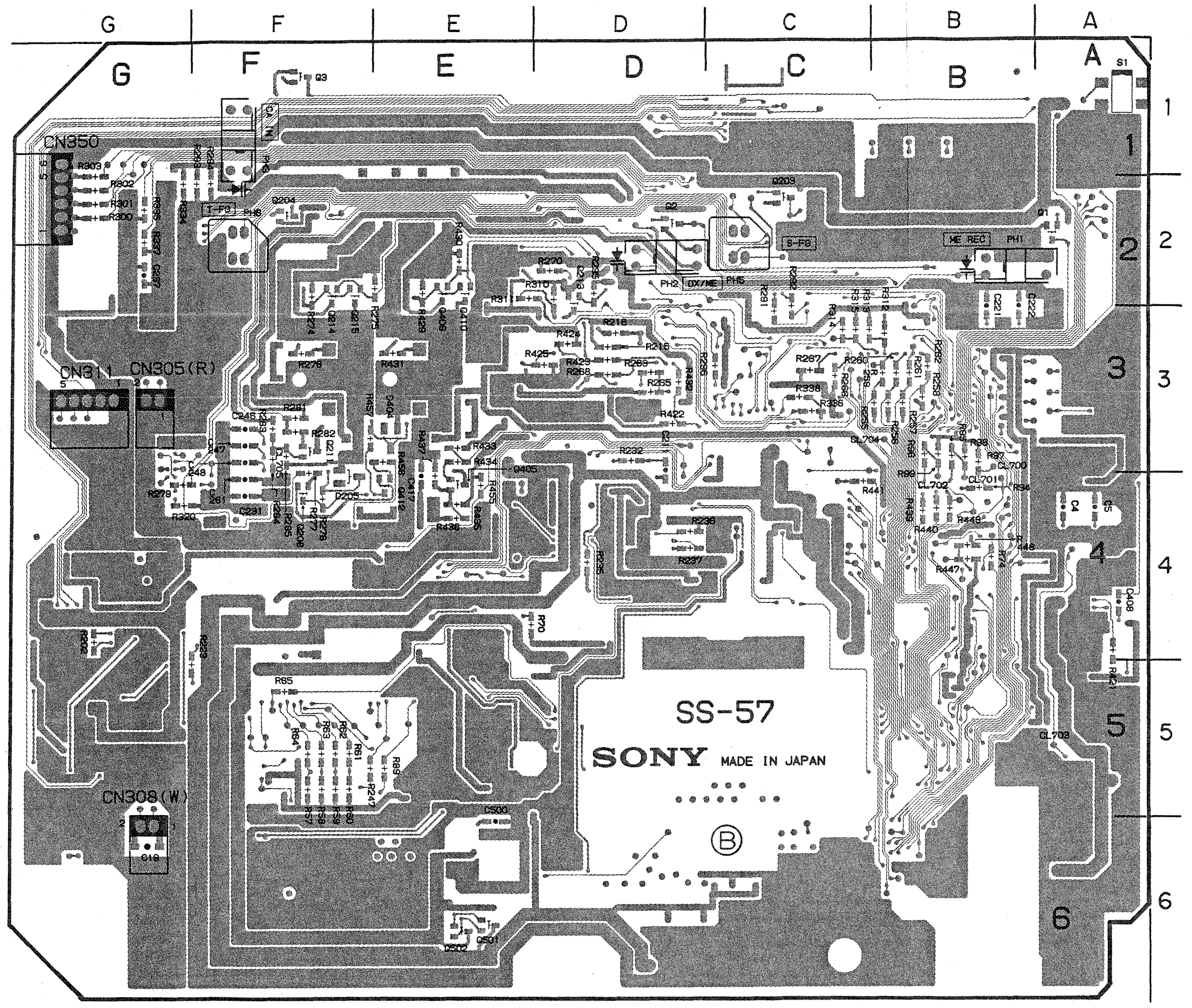
10001-11365 (UC)
30001-30490 (J)
40001-41800 (EK)


B
C
D
E
F
G
CN307
CN350
CN305 (R)
CN311
CN304
CN303
CN302
CN301
CN308 (W)
CN309
CN306
SONY MADE IN JAPAN
SS-57
1-650-140-11
5
A NO.
Ⓐ
LOT NO.
S No.
TP500

SS-57/57A -A SIDE-
1-650-140-11,-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

1-650-140-11,-12)

6	D206	F-3	IC205	D-3	L201	F-3	Q6	G-3	Q217	E-1	TP203	D-3
5	D401	E-4	IC206	C-4	L202	F-3	Q8	B-4	Q402	A-4	TP204	E-4
4	D403	E-3	IC207	D-4	L203	G-3	Q9	B-4	Q404	E-2	TP206	C-4
4	*D404	E-3	IC208	D-4	L204	G-3	Q11	D-5	*Q405	E-4	TP210	B-1
3	D405	E-4	IC209	D-4	L205	G-3	Q12	D-4	Q406	E-4	TP211	B-1
6			IC210	D-3	L206	G-2	Q14	F-5	Q407	E-4	TP212	C-1
1	E1	C-1	IC211	D-2	L207	E-1	Q201	G-6	Q408	E-3	TP402	B-5
6	E2	D-3	IC213	D-3	L401	E-3	*Q203	C-2	*Q409	E-2	TP403	B-5
6	E3	F-3	IC214	D-3	L402	E-1	*Q204	F-2	*Q410	E-2	TP405	C-3
3			IC216	C-3	*PH1	B-2	Q207	F-2	Q411	E-5	TP500	G-6
2	IC1	B-3	IC217	G-2	*PH2	D-2	*Q208	F-4	*Q412	E-4		
	IC2	A-4	IC218	G-4	*PH3	F-1	Q209	F-4	Q500	E-6	X1	A-4
4	IC3	A-5	IC219	F-3	*PH5	C-2	Q210	F-4	*Q501	E-6	X201	B-3
3	IC4	B-5	IC220	E-5	*PH6	F-2	*Q211	F-3	*Q502	E-6		
5	IC6	F-6	IC500	E-6			Q212	F-3			* ; B SIDE	
3	IC201	B-2	IC501	E-6	*Q1	A-2	*Q213	D-2	*S1	A-1		
5	IC202	G-4			*Q2	D-2	*Q214	F-2				
3	IC203	G-5	L1	F-4	*Q3	F-1	*Q215	F-2	TP201	D-3		
4	IC204	G-5	L2	F-4	Q5	A-4	Q216	G-5	TP202	D-4		


G
F
E
D
C
B
A
1
2
3
4
5
6
CN350
CN311
CN305(R)
CN308(W)
SS-57
SONY MADE IN JAPAN
Ⓑ
ME REC
PH1
S-F6
DX/ME
PH5
T-F6
PH6

SS-57/57A -B SIDE-
1-650-140-11,-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

SS-57/57A(1-650-140-11,-12)

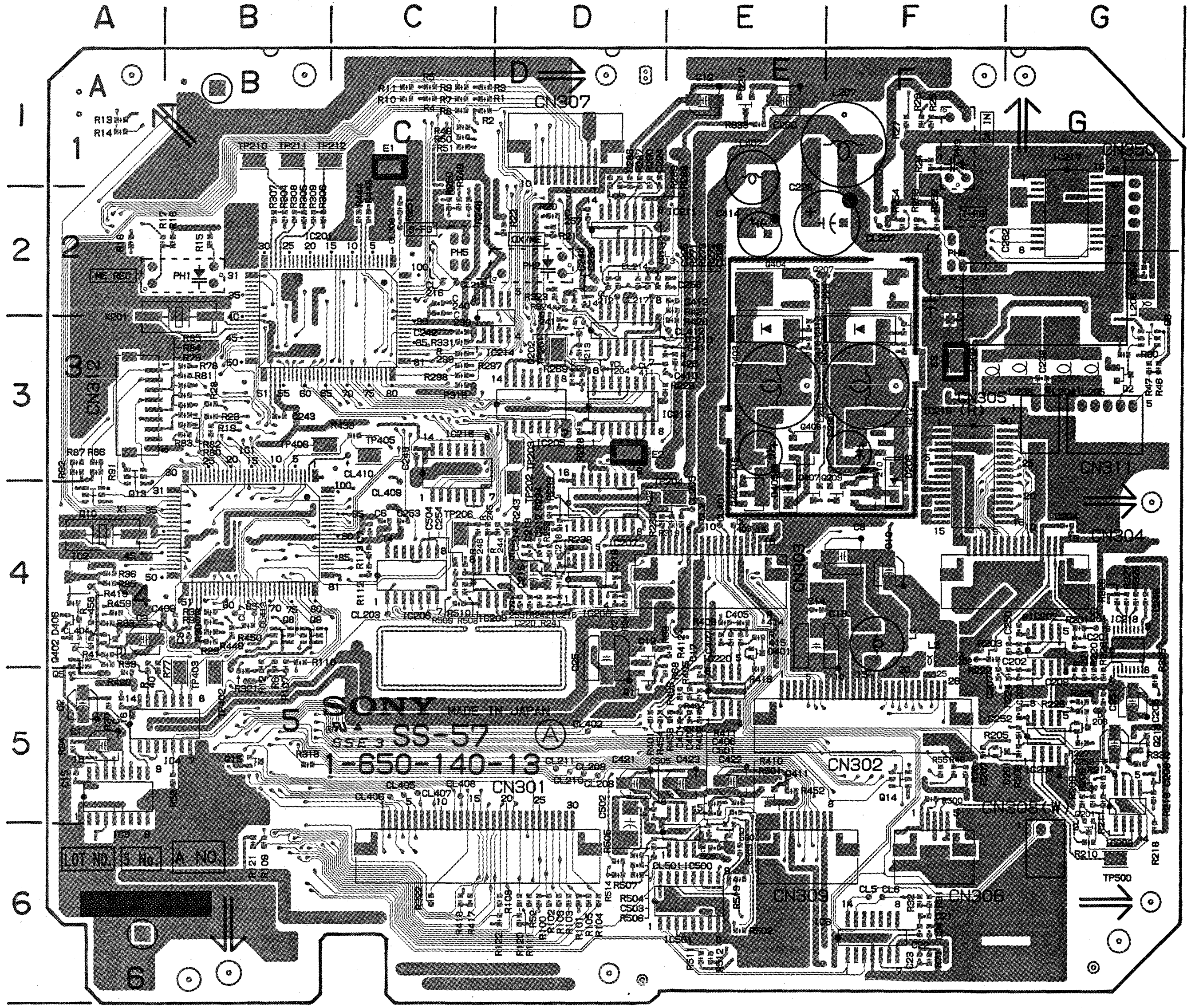
* ; B SIDE

CN301	C-6	D206	F-3	IC205	D-3	L201	F-3	Q6	G-3	Q217	E-1	TP203	D-3
CN302	F-5	D401	E-4	IC206	C-4	L202	F-3	Q8	B-4	Q402	A-4	TP204	E-4
CN303	E-4	D403	E-3	IC207	D-4	L203	G-3	Q9	B-4	Q404	E-2	TP206	C-4
CN304	G-4	*D404	E-3	IC208	D-4	L204	G-3	Q11	D-5	*Q405	E-4	TP210	B-1
CN305	G-3	D405	E-4	IC209	D-4	L205	G-3	Q12	D-4	Q406	E-4	TP211	B-1
CN306	F-6			IC210	D-3	L206	G-2	Q14	F-5	Q407	E-4	TP212	C-1
CN307	D-1	E1	C-1	IC211	D-2	L207	E-1	Q201	G-6	Q408	E-3	TP402	B-5
CN308	G-6	E2	D-3	IC213	D-3	L401	E-3	*Q203	C-2	*Q409	E-2	TP403	B-5
CN309	E-6	E3	F-3	IC214	D-3	L402	E-1	*Q204	F-2	*Q410	E-2	TP405	C-3
CN311	G-3			IC216	C-3	*PH1	B-2	Q207	F-2	Q411	E-5	TP500	G-6
CN350	G-2	IC1	B-3	IC217	G-2	*PH2	D-2	*Q208	F-4	*Q412	E-4		
		IC2	A-4	IC218	G-4	*PH3	F-1	Q209	F-4	Q500	E-6	X1	A-4
D1	A-4	IC3	A-5	IC219	F-3	*PH5	C-2	Q210	F-4	*Q501	E-6	X201	B-3
D2	G-3	IC4	B-5	IC220	E-5	*PH6	F-2	*Q211	F-3	*Q502	E-6		
D201	G-5	IC6	F-6	IC500	E-6			Q212	F-3			* ; B SIDE	
D202	D-3	IC201	B-2	IC501	E-6	*Q1	A-2	*Q213	D-2	*S1	A-1		
D203	G-5	IC202	G-4			*Q2	D-2	*Q214	F-2				
D204	F-3	IC203	G-5	L1	F-4	*Q3	F-1	*Q215	F-2	TP201	D-3		
*D205	F-4	IC204	G-5	L2	F-4	Q5	A-4	Q216	G-5	TP202	D-4		

UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

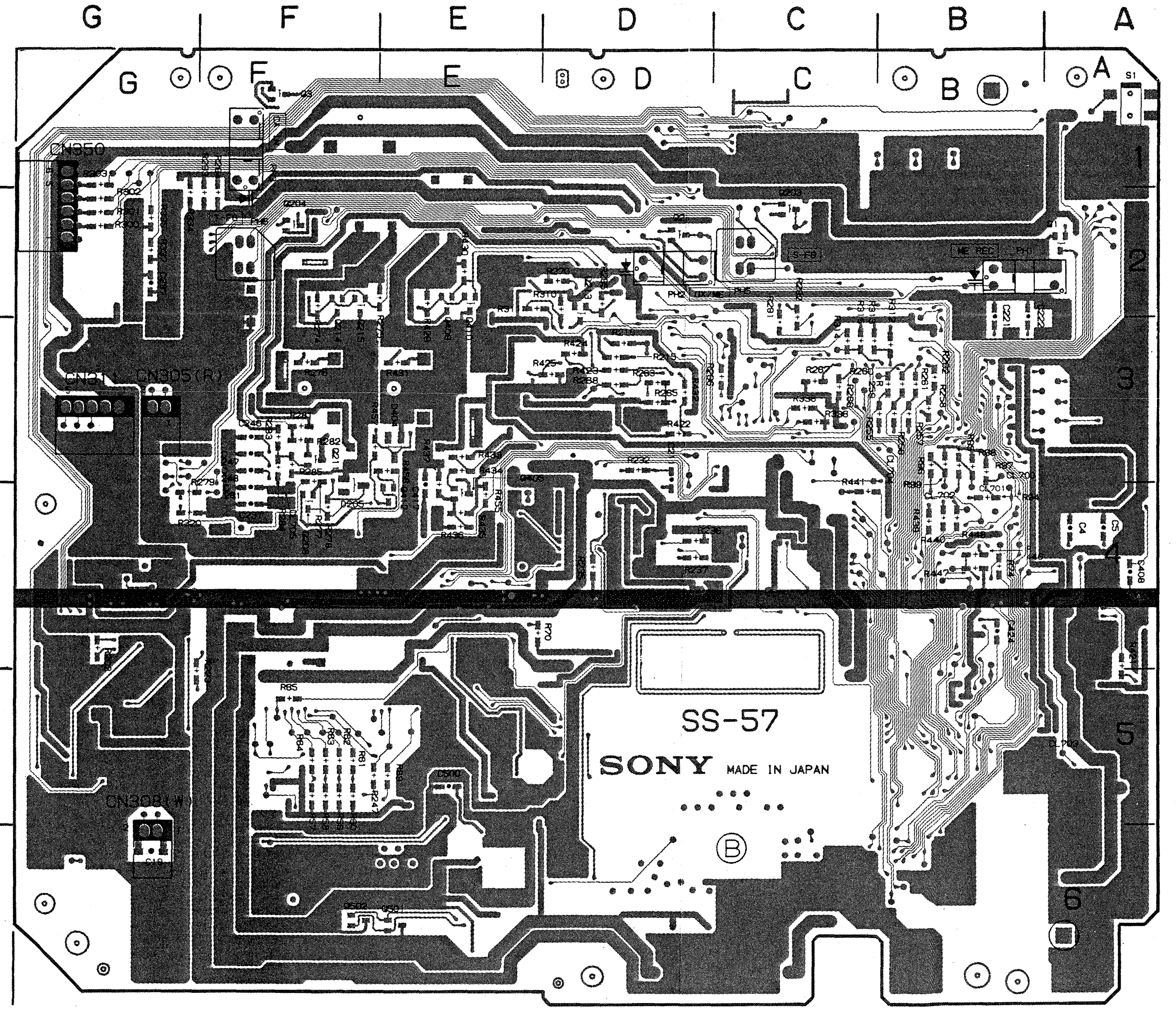
SS-57/57A BOARD

SERIAL No. 11366 and higher (UC)
30491 and higher (J)
41801 and higher (EK)



SS-57/57A -A SIDE-

1-650-140-13
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)



SS-57/57A -B SIDE-

1-650-140-13
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

SS-57/57A(1-650-140-13)

*; B SIDE

CN301	C-6
CN302	F-5
CN303	E-4
CN304	G-4
CN305	G-3
CN306	F-6
CN307	D-1
CN308	G-6
CN309	E-6
CN311	G-3
CN350	G-2
D1	A-4
D2	G-3
D201	G-5
D202	D-3
D203	G-5
D204	F-3
*D205	F-4
D206	F-3
D401	E-4
D403	E-3
*D404	E-3
D405	E-4
E1	C-1
E2	D-3
E3	F-3
IC1	B-3
IC2	A-4
IC3	A-5
IC4	B-5
IC6	F-6
IC201	B-2
IC202	G-4
IC203	G-5
IC204	G-5
IC205	D-3
IC206	C-4
IC207	D-4
IC208	D-4
IC209	D-4
IC210	D-3
IC211	D-2
IC213	D-3
IC214	D-3
IC216	C-3
IC217	G-2
IC218	G-4
IC219	F-3
IC220	E-5
IC500	E-6
IC501	E-6
L1	F-4
L2	F-4
L201	F-3
L202	F-3
L203	G-3
L204	G-3
L205	G-3
L206	G-2
L207	E-1
L401	E-3
L402	E-1
*PH1	B-2
*PH2	D-2
*PH3	F-1
*PH5	C-2
*PH6	F-2
*Q1	A-2
*Q2	D-2
*Q3	F-1
Q5	A-4
Q6	G-3
Q8	B-4
Q9	B-4
Q11	D-5
Q12	D-4
Q14	F-5
Q201	G-6
*Q203	C-2
*Q204	F-2
Q207	F-2
*Q208	F-4
Q209	F-4
Q210	F-4
*Q211	F-3
Q212	F-3
*Q213	D-2
*Q214	F-2
*Q215	F-2
Q216	G-5
Q217	E-1
Q402	A-4
Q404	E-2
*Q405	E-4
Q406	E-4
Q407	E-4
Q408	E-3
*Q409	E-2
*Q410	E-2
Q411	E-5
*Q412	E-4
Q500	E-6
*Q501	E-6
*Q502	E-6
*S1	A-1
TP201	D-3
TP202	D-4
TP203	D-3
TP204	E-4
TP206	C-4
TP210	B-1
TP211	B-1
TP212	C-1
TP402	B-5
TP403	B-5
TP405	C-3
TP500	G-6
X1	A-4
X201	B-3

*; B SIDE

SS-57/57A(1-650-140-13)

*; B SIDE

CN301	C-6
CN302	F-5
CN303	E-4
CN304	G-4
CN305	G-3
CN306	F-6
CN307	D-1
CN308	G-6
CN309	E-6
CN311	G-3
CN350	G-2
D1	A-4
D2	G-3
D201	G-5
D202	D-3
D203	G-5
D204	F-3
*D205	F-4
D206	F-3
D401	E-4
D403	E-3
*D404	E-3
D405	E-4
E1	C-1
E2	D-3
E3	F-3
IC1	B-3
IC2	A-4
IC3	A-5
IC4	B-5
IC6	F-6
IC201	B-2
IC202	G-4
IC203	G-5
IC204	G-5
IC205	D-3
IC206	C-4
IC207	D-4
IC208	D-4
IC209	D-4
IC210	D-3
IC211	D-2
IC213	D-3
IC214	D-3
IC216	C-3
IC217	G-2
IC218	G-4
IC219	F-3
IC220	E-5
IC500	E-6
IC501	E-6
L1	F-4
L2	F-4
L201	F-3
L202	F-3
L203	G-3
L204	G-3
L205	G-3
L206	G-2
L207	E-1
L401	E-3
L402	E-1
*PH1	B-2
*PH2	D-2
*PH3	F-1
*PH5	C-2
*PH6	F-2
*Q1	A-2
*Q2	D-2
*Q3	F-1
Q5	A-4
Q6	G-3
Q8	B-4
Q9	B-4
Q11	D-5
Q12	D-4
Q14	F-5
Q201	G-6
*Q203	C-2
*Q204	F-2
Q207	F-2
*Q208	F-4
Q209	F-4
Q210	F-4
*Q211	F-3
Q212	F-3
*Q213	D-2
*Q214	F-2
*Q215	F-2
Q216	G-5
Q217	E-1
Q402	A-4
Q404	E-2
*Q405	E-4
Q406	E-4
Q407	E-4
Q408	E-3
*Q409	E-2
*Q410	E-2
Q411	E-5
*Q412	E-4
Q500	E-6
*Q501	E-6
*Q502	E-6
*S1	A-1
TP201	D-3
TP202	D-4
TP203	D-3
TP204	E-4
TP206	C-4
TP210	B-1
TP211	B-1
TP212	C-1
TP402	B-5
TP403	B-5
TP405	C-3
TP500	G-6
X1	A-4
X201	B-3

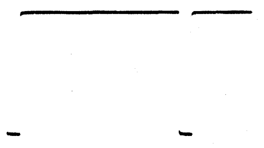
*; B SIDE

SERVO & SYSTEM CONTROL BLOCK

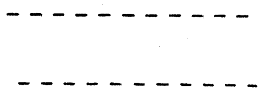
RECモード…75% COLOR BARSの記録状態。
PBモード…..アライメントテープCR5-1BのCOLOR BARS部分の再生状態。

REC mode...... Record the 75% color bars signal.
PB mode......... Play back the color bars signal portion of the alignment tape CR5-1B (for NTSC) / CR5-1BPS (for PAL).

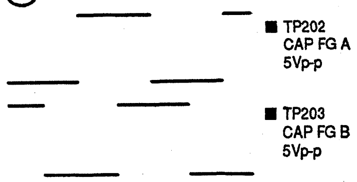
① ■ TP403 COMP SYNC 4.5Vp-p REC mode



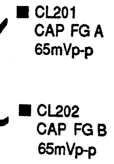
② ■ CL206 S REEL FG 5.3Vp-p
■ CL207 T REEL FG 5.3Vp-p FF/REW mode



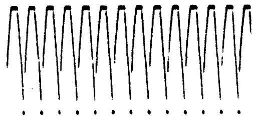
③ REC mode



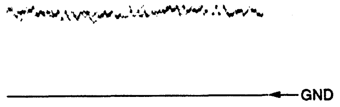
④ REC mode



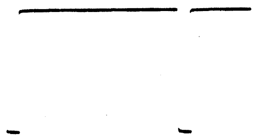
⑤ ■ TP201 CAP STOP SERVO ERROR REC mode



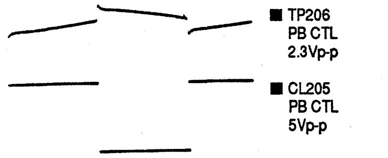
⑥ ■ CL705 CAP DRIVE 3.8Vdc REC mode



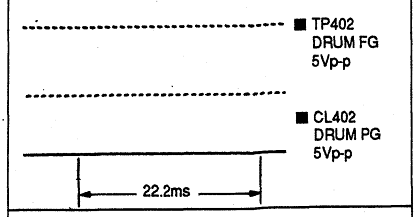
⑦ IC201-pin66 REF SYNC 4.5Vp-p REC mode



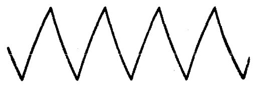
⑧ PB mode



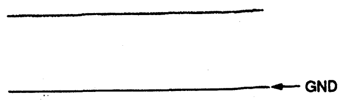
⑨ REC mode



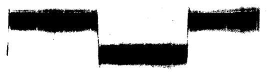
⑩ ■ CL204 PWM SAW 1.5Vp-p



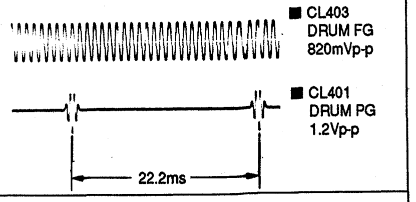
⑪ ■ CL412 DRUM DRIVE 5.4 Vdc REC mode



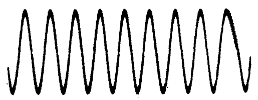
⑫ ■ TP204 REC CTL 40mVp-p REC mode



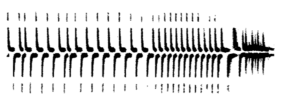
⑬ REC mode



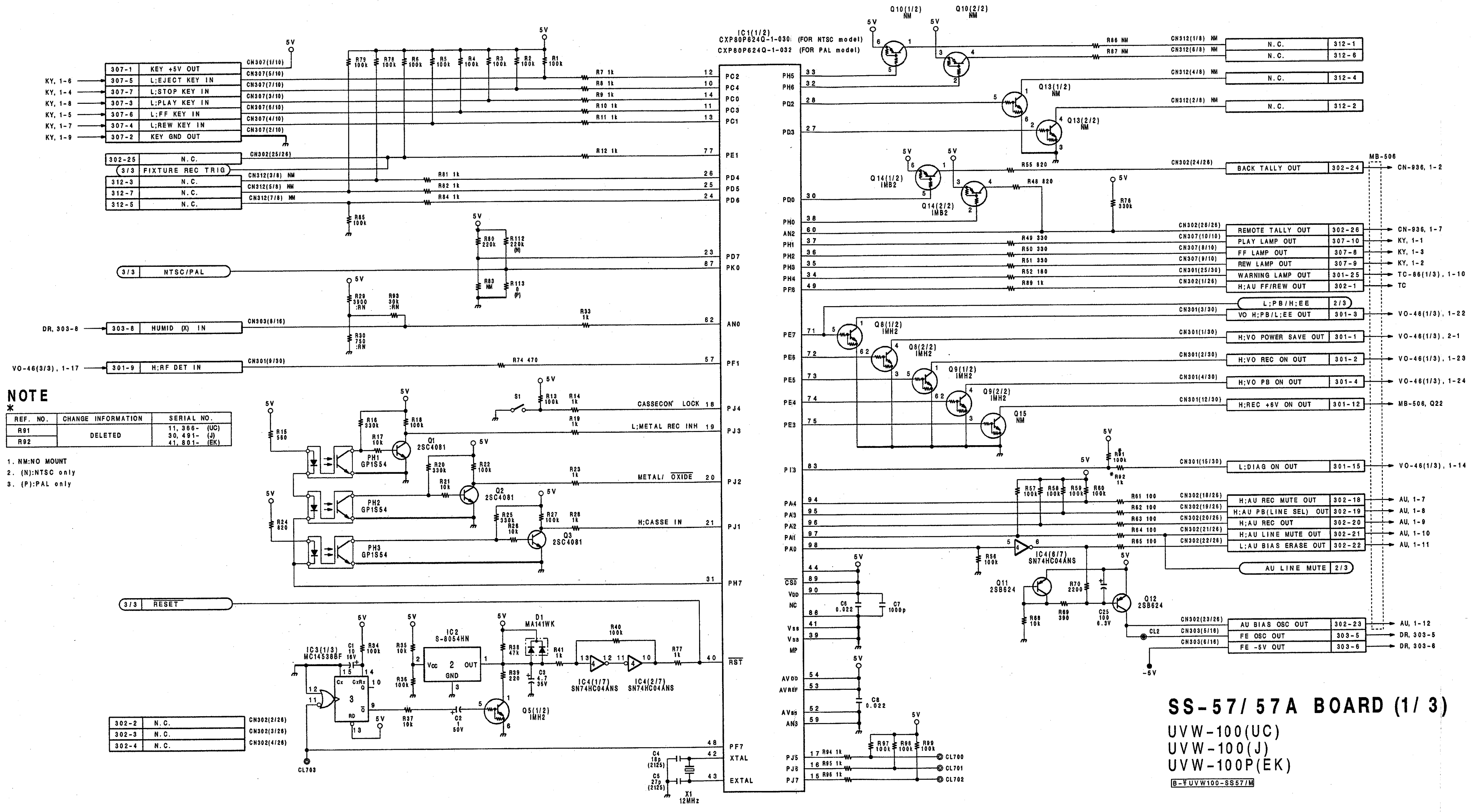
⑭ ■ CL5 170mVp-p REW mode
CL6 170mVp-p PB/FF/REC mode



⑮ CN306-pin3 REC LTC 1.5Vp-p REC mode



SERVO & SYSTEM CONTROL


IC1(1/2)
CXP80P624Q-1-030 (FOR NTSC model)
CXP80P624Q-1-032 (FOR PAL model)
IC2 S-8054HN
IC3(1/3) MC14538BF
IC4(1/7) SN74HC04ANS
IC4(2/7) SN74HC04ANS
IC4(6/7) SN74HC04ANS
D1 MA141WK
X1 12MHz
PH1 GP1S54
PH2 GP1S54
PH3 GP1S54
Q1 2SC4081
Q2 2SC4081
Q3 2SC4081
Q5(1/2) IMH2
Q8(1/2) IMH2
Q8(2/2) IMH2
Q9(1/2) IMH2
Q9(2/2) IMH2
Q10(1/2) NM
Q10(2/2) NM
Q11 2SB624
Q12 2SB624
Q13(1/2) NM
Q13(2/2) NM
Q14(1/2) IMB2
Q14(2/2) IMB2
Q15 NM
KEY +5V OUT
L;EJECT KEY IN
L;STOP KEY IN
L;PLAY KEY IN
L;FF KEY IN
L;REW KEY IN
KEY GND OUT
FIXTURE REC TRIG
NTSC/PAL
HUMID (X) IN
H;RF DET IN
RESET
CASSECON' LOCK
L;METAL REC INH
METAL/ OXIDE
H;CASSE IN
BACK TALLY OUT
REMOTE TALLY OUT
PLAY LAMP OUT
FF LAMP OUT
REW LAMP OUT
WARNING LAMP OUT
H;AU FF/REW OUT
L;PB/H;EE
VO H;PB/L;EE OUT
H;VO POWER SAVE OUT
H;VO REC ON OUT
H;VO PB ON OUT
H;REC +6V ON OUT
L;DIAG ON OUT
H;AU REC MUTE OUT
H;AU PB(LINE SEL) OUT
H;AU REC OUT
H;AU LINE MUTE OUT
L;AU BIAS ERASE OUT
AU LINE MUTE
AU BIAS OSC OUT
FE OSC OUT
FE -5V OUT
AU, 1-12
DR, 303-5
DR, 303-6
-5V
CL2
CL700
CL701
CL702
CL703

NOTE

*

REF. NO.	CHANGE INFORMATION	SERIAL NO.
R91	DELETED	11, 366- (UC) 30, 491- (J) 41, 801- (EK)
R92		

1. NM:NO MOUNT
2. (N):NTSC only
3. (P):PAL only

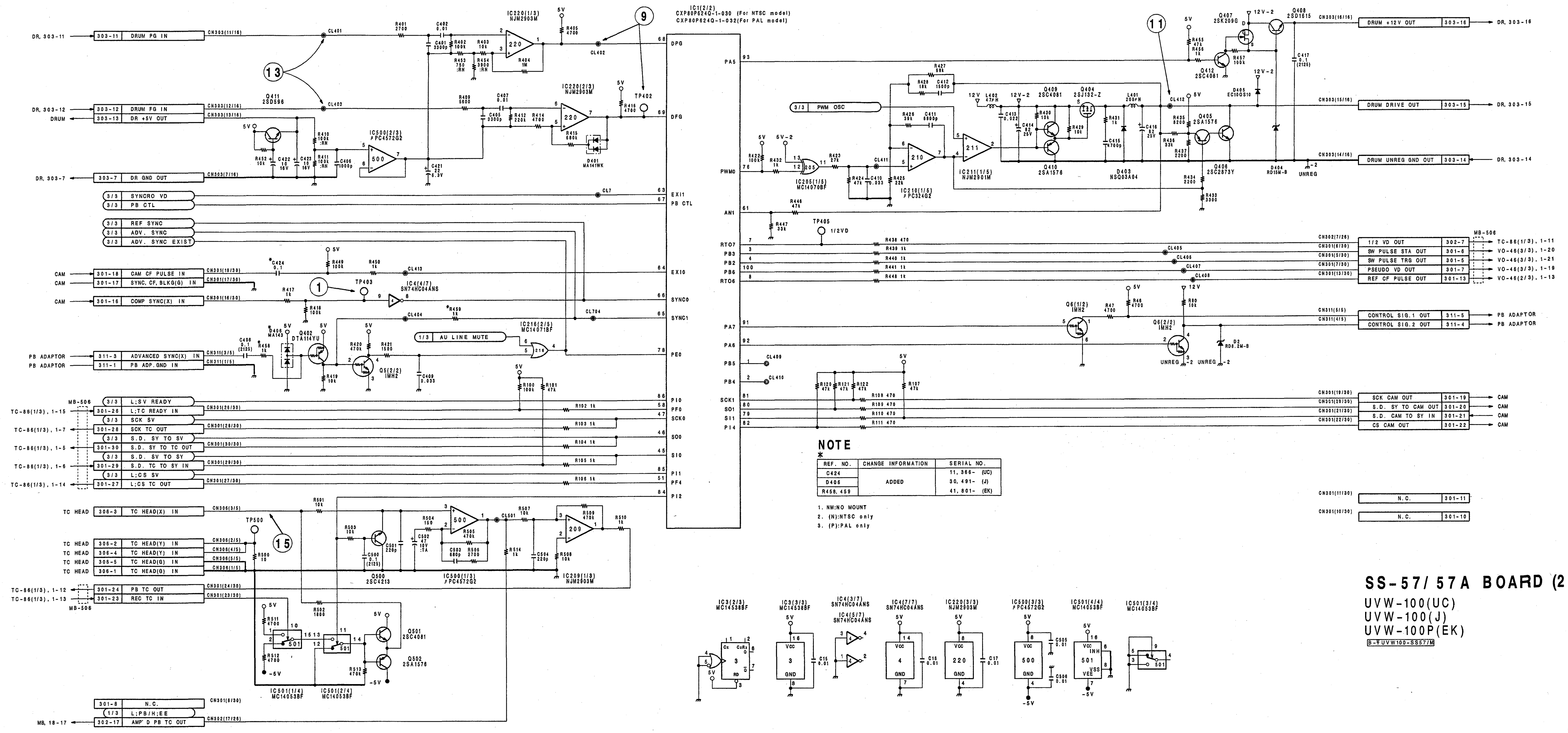
SS-57/57A BOARD (1/3)

UVW-100(UC)
UVW-100(J)
UVW-100P(EK)

B-¥UVW100-SS57/M

SS-57/57A(2/3)

SERVO & SYSTEM CONTROL


DR, 303-11
303-11 DRUM PG IN
DR, 303-12
303-12 DRUM FG IN
DRUM
303-13 DR +5V OUT
DR, 303-7
303-7 DR GND OUT
3/3 SYNCRO VD
3/3 PB CTL
3/3 REF SYNC
3/3 ADV. SYNC
3/3 ADV. SYNC EXIST
CAM
301-18 CAM CF PULSE IN
CAM
301-17 SYNC, CF, BLKG(G) IN
CAM
301-16 COMP SYNC(X) IN
PB ADAPTOR
311-3 ADVANCED SYNC(X) IN
PB ADAPTOR
311-1 PB ADP.GND IN
MB-506
3/3 L;SV READY
TC-86(1/3), 1-15
301-26 L;TC READY IN
3/3 SCK SV
TC-86(1/3), 1-7
301-28 SCK TC OUT
3/3 S.D. SY TO SV
TC-86(1/3), 1-5
301-30 S.D. SY TO TC OUT
3/3 S.D. SV TO SY
TC-86(1/3), 1-6
301-29 S.D. TC TO SY IN
3/3 L;CS SV
TC-86(1/3), 1-14
301-27 L;CS TC OUT
TC HEAD
306-3 TC HEAD(X) IN
TC HEAD
306-2 TC HEAD(Y) IN
TC HEAD
306-4 TC HEAD(Y) IN
TC HEAD
306-5 TC HEAD(G) IN
TC HEAD
306-1 TC HEAD(G) IN
TC-86(1/3), 1-12
301-24 PB TC OUT
TC-86(1/3), 1-13
301-23 REC TC IN
MB-506
301-8 N.C.
1/3 L;PB/H;EE
MB, 18-17
302-17 AMP'D PB TC OUT
IC1(2/2)
CXP80P624Q-1-030 (For NTSC model)
CXP80P624Q-1-032(For PAL model)
DPG
DFG
EXI1
PB CTL
EXI0
SYNC0
SYNC1
PE0
PI0
PF0
SCK0
SO0
SI0
PI1
PF4
PI2
PA5
PWM0
AN1
RTO7
PB3
PB2
PB6
RTO6
PA7
PA6
PB5
PB4
SCK1
SO1
SI1
PI4
IC220(1/3) NJM2903M
IC220(2/3) NJM2903M
IC500(2/3) μPC4572G2
Q415 2SD596
D401 MA141WK
TP402
TP403
TP405 1/2VD
IC4(4/7) SN74HC04ANS
IC216(2/5) MC14071BF
1/3 AU LINE MUTE
D406 MA143
Q402 DTA114YU
Q5(2/2) IMH2
3/3 PWM OSC
IC205(1/5) MC14070BF
IC210(1/5) μPC324GZ
IC211(1/5) NJM2901M
Q409 2SC4081
Q404 2SJ132-Z
Q410 2SA1576
D403 NSQ03A04
Q405 2SA1576
Q406 2SC2873Y
Q407 2SK209G
Q408 2SD1615
Q412 2SC4081
D405 EC10QS10
D404 RD15M-B
UNREG
DRUM +12V OUT 303-16 DR, 303-16
DRUM DRIVE OUT 303-15 DR, 303-15
DRUM UNREG GND OUT 303-14 DR, 303-14
1/2 VD OUT 302-7 TC-86(1/3), 1-11
SW PULSE STA OUT 301-6 VO-46(3/3), 1-20
SW PULSE TRG OUT 301-5 VO-46(3/3), 1-21
PSEUDO VD OUT 301-7 VO-46(3/3), 1-19
REF CF PULSE OUT 301-13 VO-46(2/3), 1-13
Q6(1/2) IMH2
Q6(2/2) IMH2
D2 RD6.2M-B
CONTROL SIG.1 OUT 311-5 PB ADAPTOR
CONTROL SIG.2 OUT 311-4 PB ADAPTOR
SCK CAM OUT 301-19 CAM
S.D. SY TO CAM OUT 301-20 CAM
S.D. CAM TO SY IN 301-21 CAM
CS CAM OUT 301-22 CAM
N.C. 301-11
N.C. 301-10
TP500
Q500 2SC4213
IC500(1/3) μPC4572G2
IC209(1/3) NJM2903M
IC501(1/4) MC14053BF
IC501(2/4) MC14053BF
Q501 2SC4081
Q502 2SA1576
IC3(2/3) MC14538BF
IC3(3/3) MC14538BF
IC4(3/7) SN74HC04ANS
IC4(5/7) SN74HC04ANS
IC4(7/7) SN74HC04ANS
IC220(3/3) NJM2903M
IC500(3/3) μPC4572G2
IC501(4/4) MC14053BF
IC501(3/4) MC14053BF
9
11
13
1
15

NOTE

*

REF. NO.	CHANGE INFORMATION	SERIAL NO.
C424	ADDED	11, 366- (UC)
D406		30, 491- (J)
R458, 459		41, 801- (EK)

1. NM:NO MOUNT
2. (N):NTSC only
3. (P):PAL only

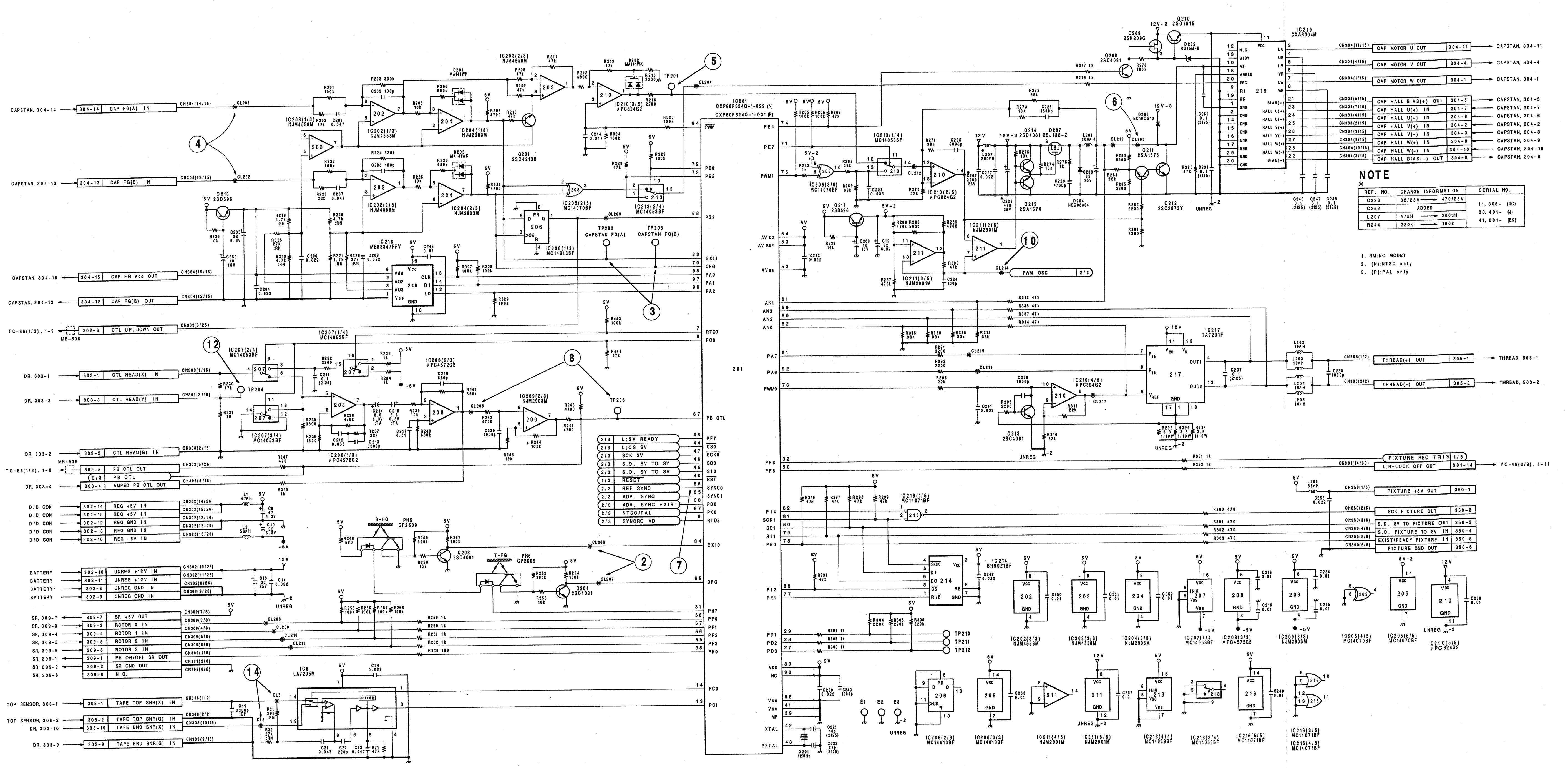
SS-57/57A BOARD (2/3)

UVW-100(UC)
UVW-100(J)
UVW-100P(EK)
B-¥UVW100-SS57/M

11-30

SS-57/57A(3/3)

SERVO & SYSTEM CONTROL


CAPSTAN, 304-14
304-14 CAP FG(A) IN
CN304(14/15)
CAPSTAN, 304-13
304-13 CAP FG(B) IN
CN304(13/15)
CAPSTAN, 304-15
304-15 CAP FG Vcc OUT
CN304(15/15)
CAPSTAN, 304-12
304-12 CAP FG(G) OUT
CN304(12/15)
TC-86(1/3), 1-9
MB-506
302-6 CTL UP/DOWN OUT
CN302(6/26)
DR, 303-1
303-1 CTL HEAD(X) IN
CN303(1/16)
DR, 303-3
303-3 CTL HEAD(Y) IN
CN303(3/16)
DR, 303-2
303-2 CTL HEAD(G) IN
CN303(2/16)
TC-86(1/3), 1-8
302-5 PB CTL OUT
CN302(5/26)
2/3 PB CTL
DR, 303-4
303-4 AMPED PB CTL OUT
CN303(4/16)
D/D CON
302-14 REG +5V IN
302-15 REG +5V IN
302-12 REG GND IN
302-13 REG GND IN
302-16 REG -5V IN
BATTERY
302-10 UNREG +12V IN
302-11 UNREG +12V IN
302-8 UNREG GND IN
302-9 UNREG GND IN
SR, 309-7
309-7 SR +5V OUT
SR, 309-3
309-3 ROTOR 0 IN
SR, 309-4
309-4 ROTOR 1 IN
SR, 309-5
309-5 ROTOR 2 IN
SR, 309-6
309-6 ROTOR 3 IN
SR, 309-1
309-1 PH ON/OFF SR OUT
SR, 309-2
309-2 SR GND OUT
SR, 309-8
309-8 N.C.
TOP SENSOR, 308-1
308-1 TAPE TOP SNR(X) IN
TOP SENSOR, 308-2
308-2 TAPE TOP SNR(G) IN
DR, 303-10
303-10 TAPE END SNR(X) IN
DR, 303-9
303-9 TAPE END SNR(G) IN
IC201
CXP80P624Q-1-029 (N)
CXP80P624Q-1-031 (P)
201
IC218 MB88347PFV
IC6 LA7206M
IC219 CXA8004M
IC217 TA7291F
IC214 BR9021BF
X201 12MHz
TP201
TP202 CAPSTAN FG(A)
TP203 CAPSTAN FG(B)
TP204
TP206
TP210
TP211
TP212
S-FG
T-FG
PH5 GP2S09
PH6 GP2S09
2/3 L:SV READY
2/3 L:CS SV
2/3 SCK SV
2/3 S.D. SV TO SV
2/3 S.D. SY TO SV
1/3 RESET
2/3 REF SYNC
2/3 ADV. SYNC
2/3 ADV. SYNC EXIST
2/3 NTSC/PAL
2/3 SYNCRO VD
PWM OSC 2/3
CN304(11/15) CAP MOTOR U OUT 304-11
CAPSTAN, 304-11
CN304(4/15) CAP MOTOR V OUT 304-4
CAPSTAN, 304-4
CN304(1/15) CAP MOTOR W OUT 304-1
CAPSTAN, 304-1
CN304(5/15) CAP HALL BIAS(+) OUT 304-5
CAPSTAN, 304-5
CN304(7/15) CAP HALL U(+) IN 304-7
CAPSTAN, 304-7
CN304(6/15) CAP HALL U(-) IN 304-6
CAPSTAN, 304-6
CN304(2/15) CAP HALL V(+) IN 304-2
CAPSTAN, 304-2
CN304(3/15) CAP HALL V(-) IN 304-3
CAPSTAN, 304-3
CN304(9/15) CAP HALL W(+) IN 304-9
CAPSTAN, 304-9
CN304(10/15) CAP HALL W(-) IN 304-10
CAPSTAN, 304-10
CN304(8/15) CAP HALL BIAS(-) OUT 304-8
CAPSTAN, 304-8
CN305(1/2) THREAD(+) OUT 305-1
THREAD, 503-1
CN305(2/2) THREAD(-) OUT 305-2
THREAD, 503-2
FIXTURE REC TRIG 1/3
CN301(14/30) L;H-LOCK OFF OUT 301-14
VO-46(3/3), 1-11
CN350(1/6) FIXTURE +5V OUT 350-1
CN350(2/6) SCK FIXTURE OUT 350-2
CN350(3/6) S.D. SV TO FIXTURE OUT 350-3
CN350(4/6) S.D. FIXTURE TO SV IN 350-4
CN350(5/6) EXIST/READY FIXTURE IN 350-5
CN350(6/6) FIXTURE GND OUT 350-6
1
2
3
4
5
A
B
C
D
E
F
G
H

NOTE

*

REF. NO.	CHANGE INFORMATION	SERIAL NO.
C228	82/25V → 470/25V	11, 366- (UC) 30, 491- (J) 41, 801- (EK)
C262	ADDED	
L207	47uH → 200uH	
R244	220k → 100k	

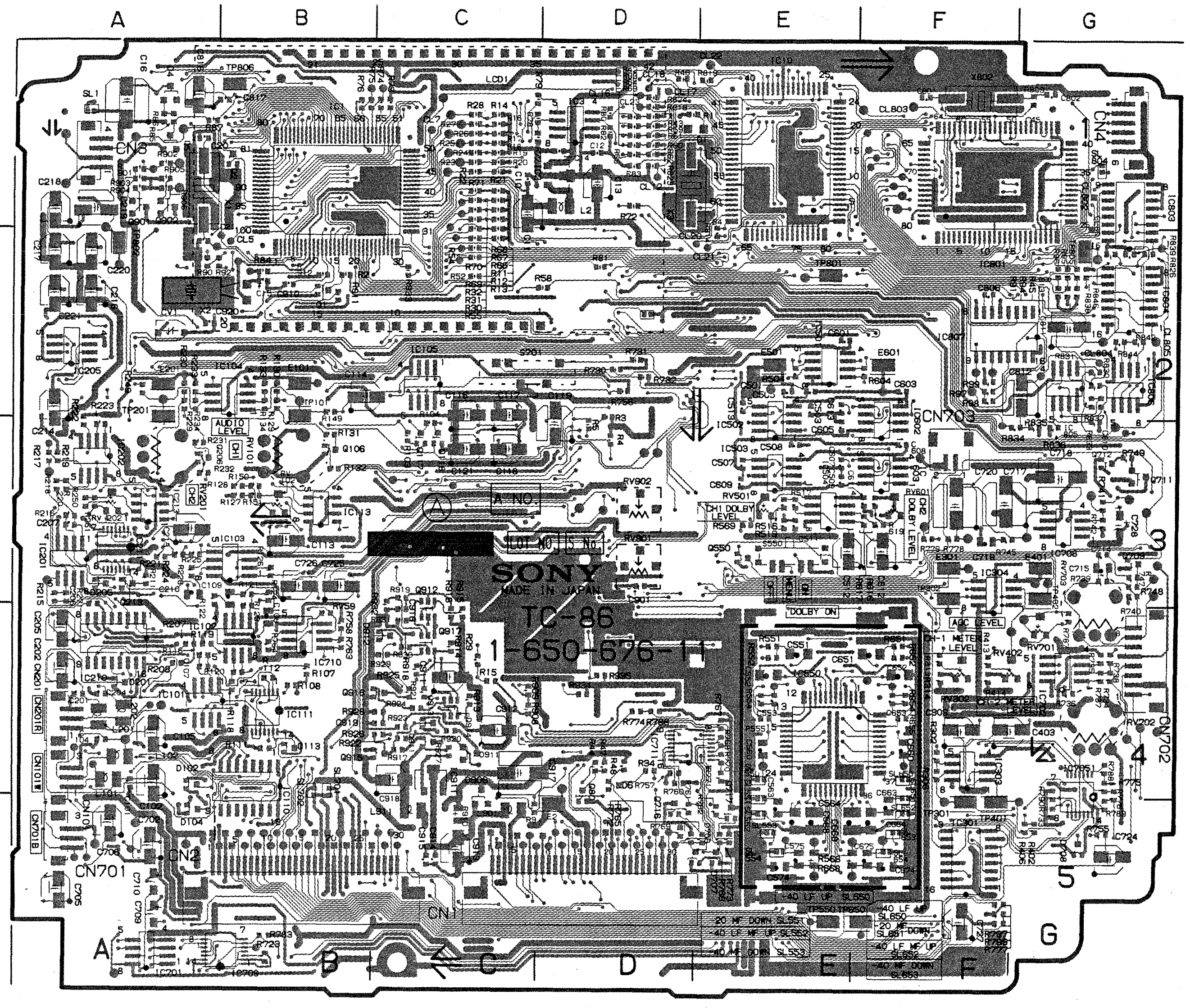
1. NM:NO MOUNT
2. (N):NTSC only
3. (P):PAL only

SS-57/57A BOARD (3/3)

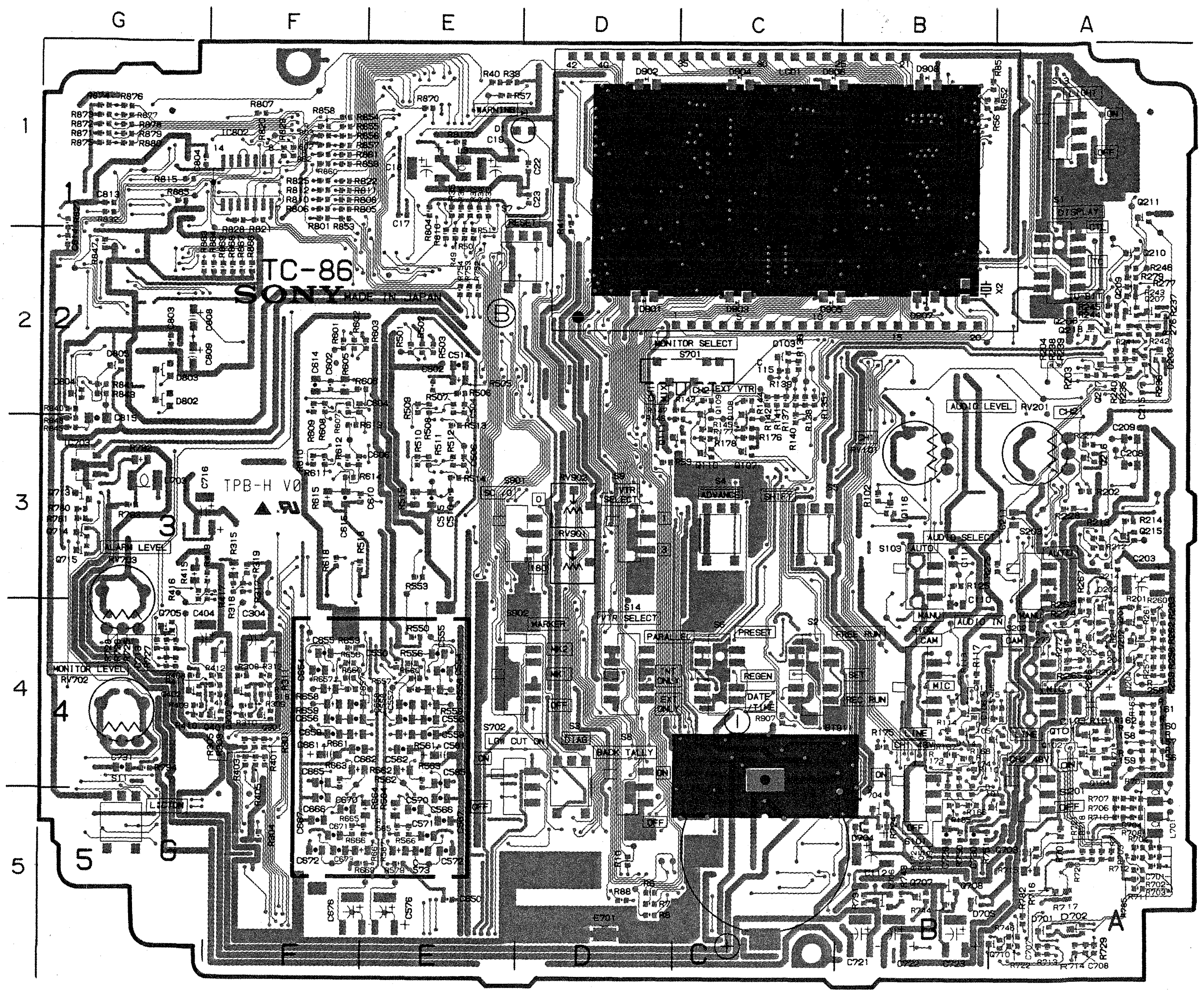
UVW-100(UC)
UVW-100(J)
UVW-100P(EK)
B-¥UVW100-SS57/M

SERIAL No. 10001-10975 (UC)
30001-30470 (J)
40001-41210 (EK)

TC-86/86A BOARD


A
B
C
D
E
F
G
1
2
3
4
5
SONY
MADE IN JAPAN
TC-86
1-650-676-11
CN1
CN701
CN702
CN703
CN4
DOLBY ON
AUDIO LEVEL

TC-86/86A -A SIDE-
1-650-676-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


G
F
E
D
C
B
A
1
2
3
4
5
TC-86
SONY
MADE IN JAPAN
TPB-H V0
MONITOR SELECT
MONITOR LEVEL
ALARM LEVEL
AUDIO LEVEL
AUDIO SELECT
BACK TALLY
PRESET
REGEN
DATE
REC RUN
FREE RUN

TC-86/86A -B SIDE-
1-650-676-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

TC-86/86A(1-650-676-11)

*; B SIDE

*BT911	C-5
CN1	D-5
CN2	B-5
CN3	A-1
CN101	A-4
CN201	A-4
CN701	A-5
CN702	G-4
CN703	F-3
CV1	A-2
*D1	D-1
D4	A-1
D5	A-1
D6	D-4
*D101	A-5
D102	A-4
*D103	C-2
D104	A-5
*D105	A-4
D201	A-4
*D202	A-4
*D203	A-2
*D204	A-4
D205	A-3
*D701	A-5
*D702	A-5
*D704	B-5
*D705	B-5
D706	D-5
D707	E-5
D708	G-5
*D802	G-2
*D803	G-2
*D804	G-2
*D805	G-2
*D901	D-2
*D902	D-1
*D903	C-2
*D904	C-1
*D905	C-2
*D906	C-1
*D907	B-2
*D908	B-1
D909	C-5
D911	C-4
D912	C-4
E2	D-5
E101	B-2
E201	A-2
E301	F-3
E401	G-3
E501	E-2
E601	F-2
*E701	D-5
IC1	B-1
IC2	D-1
IC3	D-1
IC10	E-1
IC101	A-4
IC102	B-4
IC103	B-3
IC104	B-2
IC105	C-2
IC110	B-4
IC111	B-4
IC113	B-3
IC201	A-3
IC202	A-3
IC205	A-2
IC210	A-4
IC211	A-3
IC213	A-3
IC301	F-5
IC303	F-4
IC304	F-3
IC501	E-2
IC502	E-3
IC503	E-3
IC504	E-3
IC550	E-4
IC602	F-3
IC603	F-3
IC701	A-5
IC702	G-4
*IC703	G-3
IC705	G-4
IC708	G-3
IC709	B-5
IC710	B-4
IC711	D-4
IC801	F-1
*IC802	F-1
IC803	G-1
IC804	G-2
IC805	G-2
IC806	G-2
IC807	F-2
IC911	C-4
L2	D-1
*L3	E-1
L101	A-4
L102	A-4
L201	A-4
L202	A-4
*L701	A-5
*L702	A-5
*L703	G-3
L901	C-5
L911	C-5
*ND1	C-1
Q1	B-2
*Q101	A-4
*Q102	A-4

*Q104	A-4
Q106	B-3
*Q107	C-3
*Q108	C-2
*Q109	C-2
*Q110	C-3
*Q111	C-3
Q113	B-4
*Q114	B-4
*Q115	B-4
*Q116	B-3
Q117	C-3
Q118	C-3
*Q201	A-4
*Q202	A-4
*Q204	A-4
Q206	A-3
*Q207	A-2
*Q208	A-2
*Q209	A-2
*Q210	A-2
*Q211	A-1
Q213	A-3
*Q214	A-3
*Q215	A-3
*Q216	A-3
*Q217	A-2
*Q218	A-2
*Q301	F-4
*Q302	F-4
*Q401	F-4
*Q402	G-4
Q550	E-3
*Q703	A-5
*Q704	B-5
*Q705	G-4
*Q706	B-5
*Q707	B-5
*Q708	B-5
Q709	G-3
*Q710	A-5
Q711	G-3
Q712	G-3
*Q713	G-3
*Q714	G-3
*Q715	G-3
Q716	D-5
Q717	E-5
Q801	D-4
Q901	A-1
Q911	C-4
Q912	C-4
Q913	C-4
Q914	C-4
Q915	C-4
Q916	C-4
Q917	C-4
*RV101	B-3
RV102	B-3
*RV201	A-3
RV202	A-3
RV302	F-4
RV402	F-4
RV701	G-4
*RV901	D-3
*RV902	D-3
*S1	A-2
*S2	C-4
*S3	D-4
*S4	C-3
*S5	C-3
*S6	C-4
*S7	D-2
*S8	D-4
*S9	D-3
*S13	A-1
S14	D-4
*S101	B-5
*S102	B-4
*S103	B-3
*S201	A-5
*S202	A-4
*S203	A-3
S550	E-3
*S701	C-2
*S702	E-4
*S901	E-3
*S902	E-4
TP101	B-2
TP201	A-2
TP301	F-5
TP302	F-3
TP401	F-5
TP402	G-3
TP550	E-5
TP650	F-5
TP801	E-2
TP802	A-2
TP805	G-2
TP806	B-1
X1	A-1
X2	B-2
X3	D-1
X802	F-1

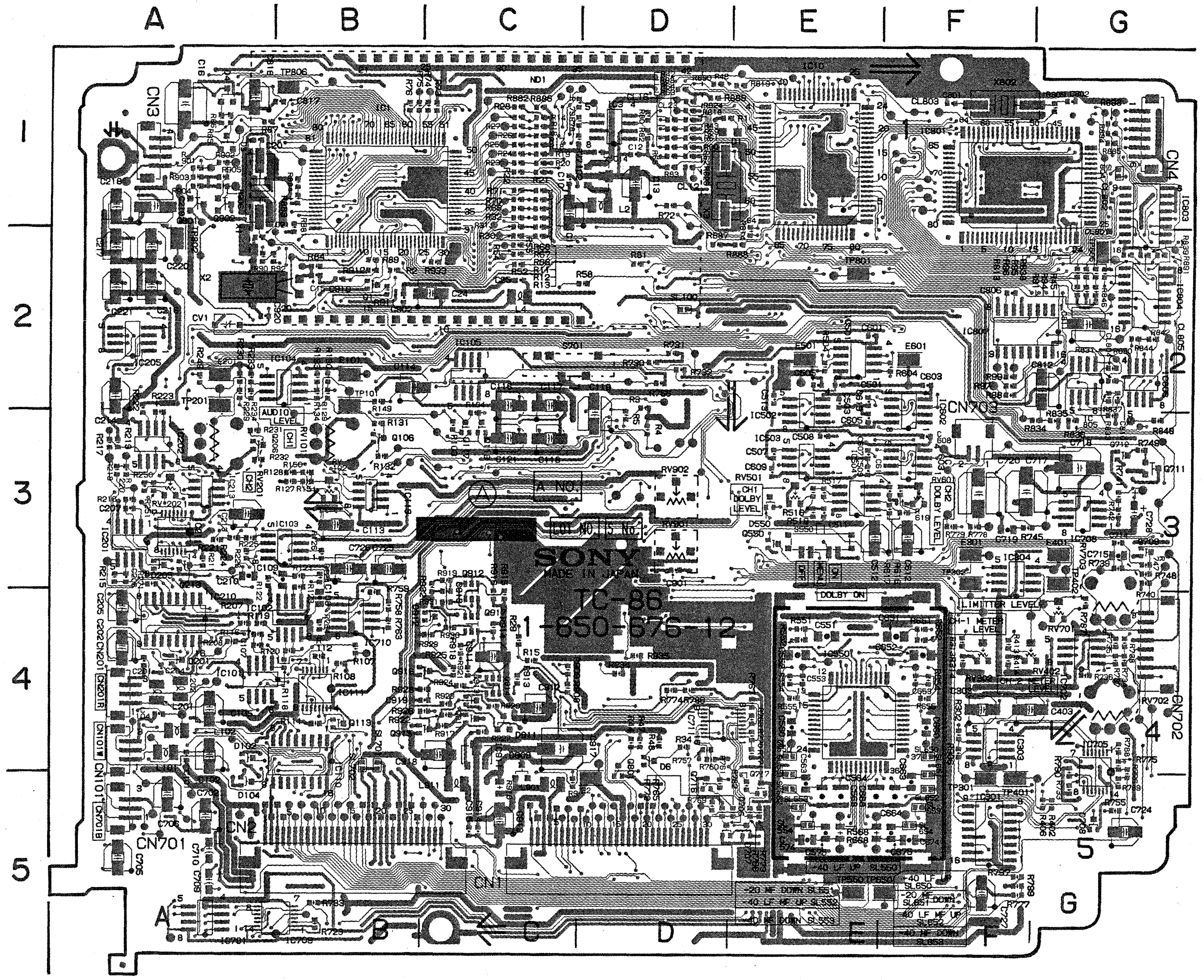
*; B SIDE

11-32

UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

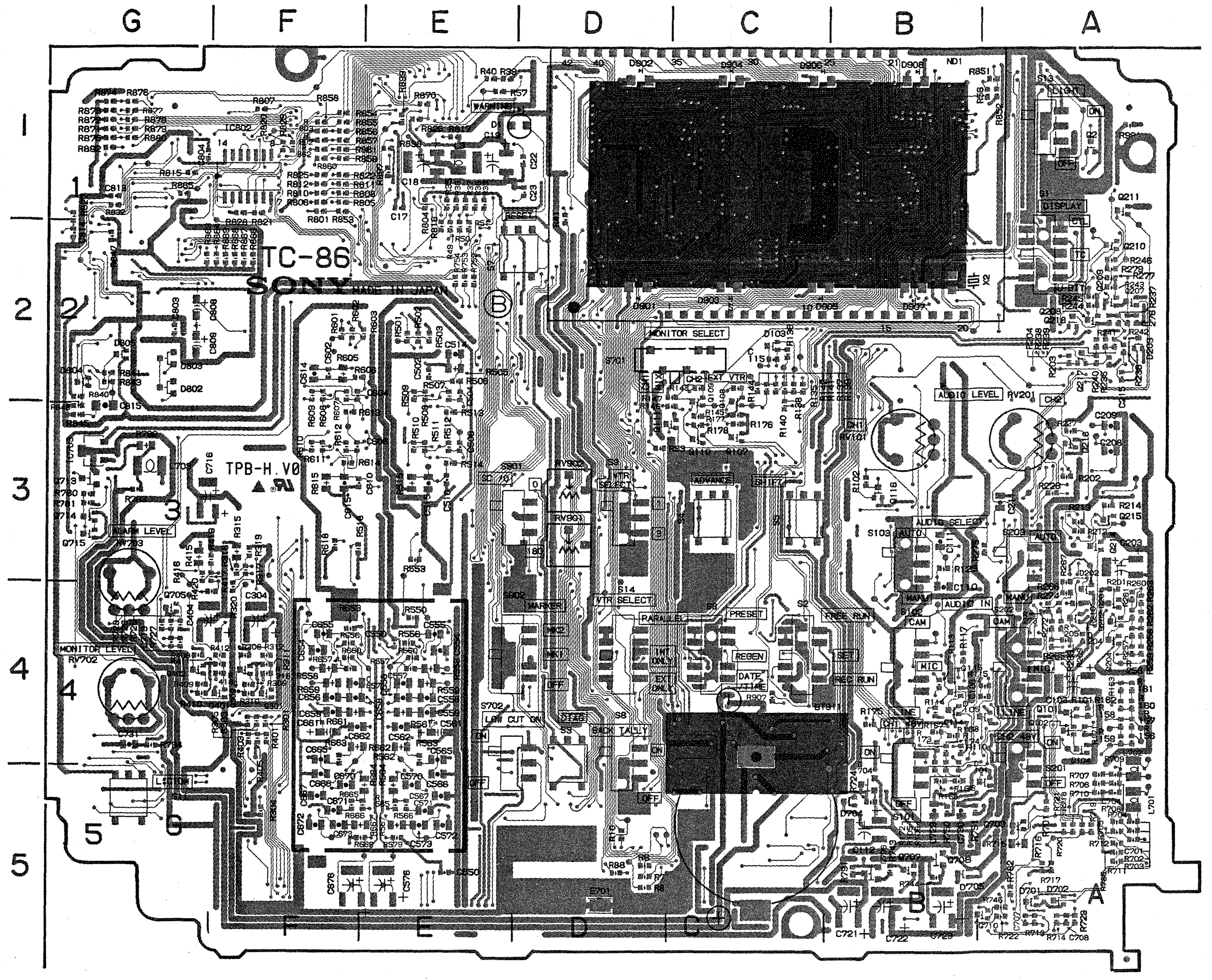
SERIAL No. 10976 and higher (UC)
30471 and higher (J)
41211 and higher (EK)

TC-86/86A BOARD


A
B
C
D
E
F
G
1
2
3
4
5
CN1
CN3
CN4
CN701
CN702
CN703
IC1
IC10
SONY
MADE IN JAPAN
TC-86
1-650-676-12
DOLBY ON
AUDIO LEVEL
LIMITTER LEVEL
CH-1 METER LEVEL
-20 MF DOWN SL551
-40 LF HF UP SL552
40 LF UP SL550

TC-86/86A -A SIDE-

1-650-676-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


G
F
E
D
C
B
A
1
2
3
4
5
TC-86
SONY
TPB-H.V0
MONITOR SELECT
MONITOR LEVEL
AUDIO LEVEL
AUDIO SELECT
AUDIO IN
DISPLAY
ALARM LEVEL
DOLBY ON
VTR SELECT
PRESET
REGEN
FREE RUN
DATE
LOW CUT ON
BACK TALLY
ADVANCE
MARKER
EXT VTR
RV702
RV701
RV201
RV902
RV901

TC-86/86A -B SIDE-

1-650-676-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

TC-86/86A(1-650-676-12)

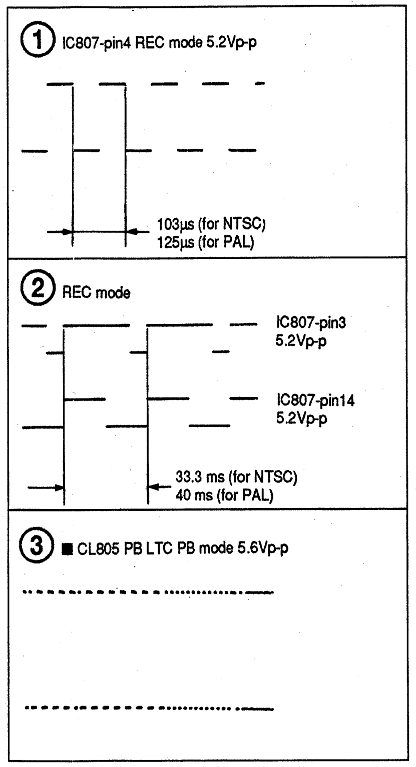
*; B SIDE

*BT911	C-5
CN1	D-5
CN2	B-5
CN3	A-1
CN101	A-4
CN201	A-4
CN701	A-5
CN702	G-4
CN703	F-3
CV1	A-2
*D1	D-1
D4	A-1
D5	A-1
D6	D-4
*D101	A-5
D102	A-4
*D103	C-2
D104	A-5
*D105	A-4
D201	A-4
*D202	A-4
*D203	A-2
*D204	A-4
D205	A-3
*D701	A-5
*D702	A-5
*D704	B-5
*D705	B-5
D706	D-5
D707	E-5
D708	G-5
*D802	G-2
*D803	G-2
*D804	G-2
*D805	G-2
*D901	D-2
*D902	D-1
*D903	C-2
*D904	C-1
*D905	C-2
*D906	C-1
*D907	B-2
*D908	B-1
D909	C-5
D911	C-4
D912	C-4
E2	D-5
E101	B-2
E201	A-2
E301	F-3
E401	G-3
E501	E-2
E601	F-2
*E701	D-5
IC1	B-1
IC2	D-1
IC3	D-1
IC10	E-1
IC101	A-4
IC102	B-4
IC103	B-3
IC104	B-2
IC105	C-2
IC110	B-4
IC111	B-4
IC113	B-3
IC201	A-3
IC202	A-3
IC205	A-2
IC210	A-4
IC211	A-3
IC213	A-3
IC301	F-5
IC303	F-4
IC304	F-3
IC501	E-2
IC502	E-3
IC503	E-3
IC504	E-3
IC550	E-4
IC602	F-3
IC603	F-3
IC701	A-5
IC702	G-4
*IC703	G-3
IC705	G-4
IC708	G-3
IC709	B-5
IC710	B-4
IC711	D-4
IC801	F-1
*IC802	F-1
IC803	G-1
IC804	G-2
IC805	G-2
IC806	G-2
IC807	F-2
IC911	C-4
L2	D-1
*L3	E-1
L101	A-4
L102	A-4
L201	A-4
L202	A-4
*L701	A-5
*L702	A-5
*L703	G-3
L901	C-5
L911	C-5
*ND1	C-1
Q1	B-2
*Q101	A-4
*Q102	A-4
*Q104	A-4
Q106	B-3
*Q107	C-3
*Q108	C-2
*Q109	C-2
*Q110	C-3
*Q111	C-3
Q113	B-4
*Q114	B-4
*Q115	B-4
*Q116	B-3
Q117	C-3
Q118	C-3
*Q201	A-4
*Q202	A-4
*Q204	A-4
Q206	A-3
*Q207	A-2
*Q208	A-2
*Q209	A-2
*Q210	A-2
*Q211	A-1
Q213	A-3
*Q214	A-3
*Q215	A-3
*Q216	A-3
*Q217	A-2
*Q218	A-2
*Q301	F-4
*Q302	F-4
*Q401	F-4
*Q402	G-4
Q550	E-3
*Q703	A-5
*Q704	B-5
*Q705	G-4
*Q706	B-5
*Q707	B-5
*Q708	B-5
Q709	G-3
*Q710	A-5
Q711	G-3
Q712	G-3
*Q713	G-3
*Q714	G-3
*Q715	G-3
Q716	D-5
Q717	E-5
Q801	D-4
Q901	A-1
Q911	C-4
Q912	C-4
Q913	C-4
Q914	C-4
Q915	C-4
Q916	C-4
Q917	C-4
*RV101	B-3
RV102	B-3
*RV201	A-3
RV202	A-3
RV302	F-4
RV402	F-4
RV701	G-4
*RV901	D-3
*RV902	D-3
*S1	A-2
*S2	C-4
*S3	D-4
*S4	C-3
*S5	C-3
*S6	C-4
*S7	D-2
*S8	D-4
*S9	D-3
*S13	A-1
S14	D-4
*S101	B-5
*S102	B-4
*S103	B-3
*S201	A-5
*S202	A-4
*S203	A-3
S550	E-3
*S701	C-2
*S702	E-4
*S901	E-3
*S902	E-4
TP101	B-2
TP201	A-2
TP301	F-5
TP302	F-3
TP401	F-5
TP402	G-3
TP550	E-5
TP650	F-5
TP801	E-2
TP802	A-2
TP805	G-2
TP806	B-1
X1	A-1
X2	B-2
X3	D-1
X802	F-1

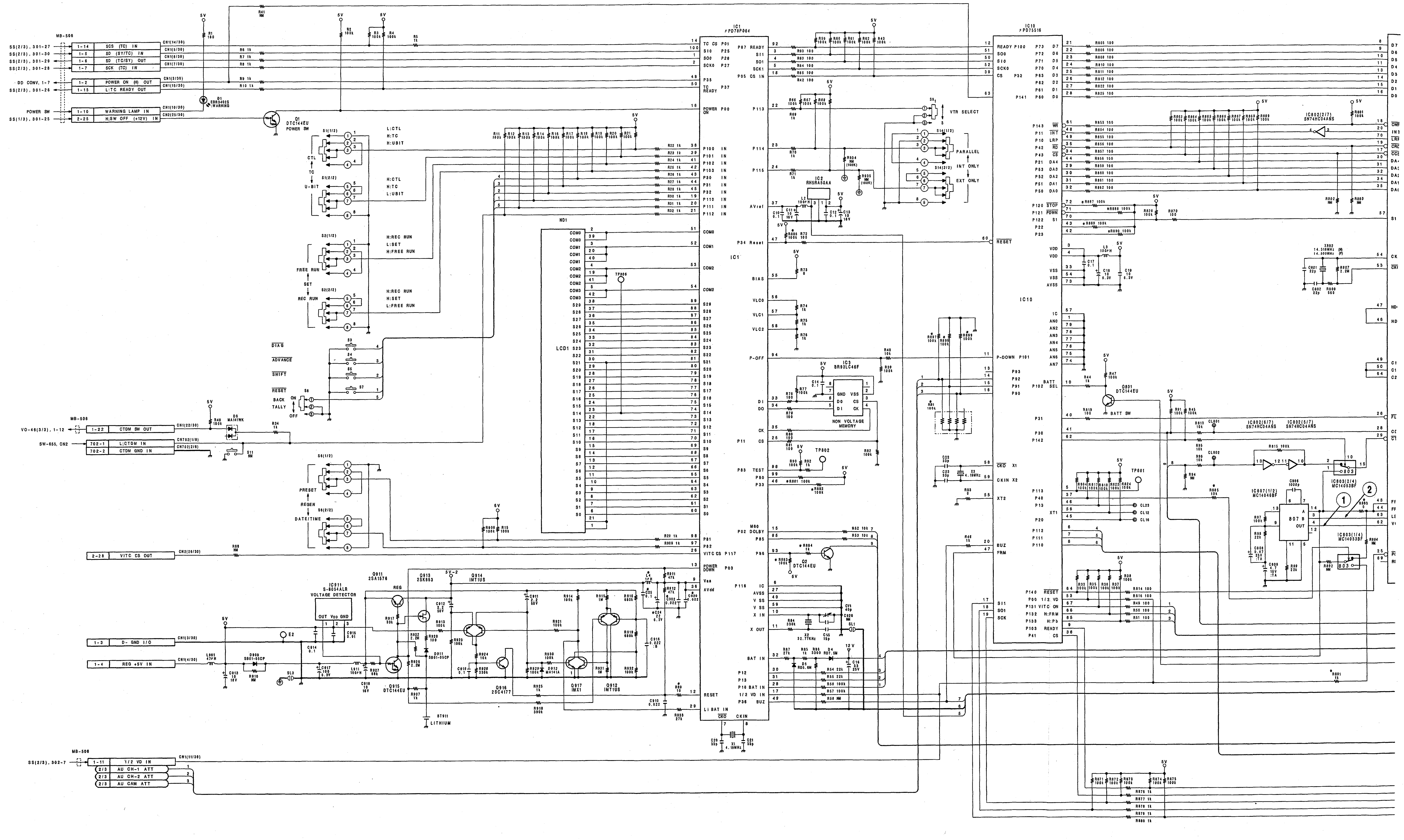
*; B SIDE

TC GENERATOR AUDIO AMP

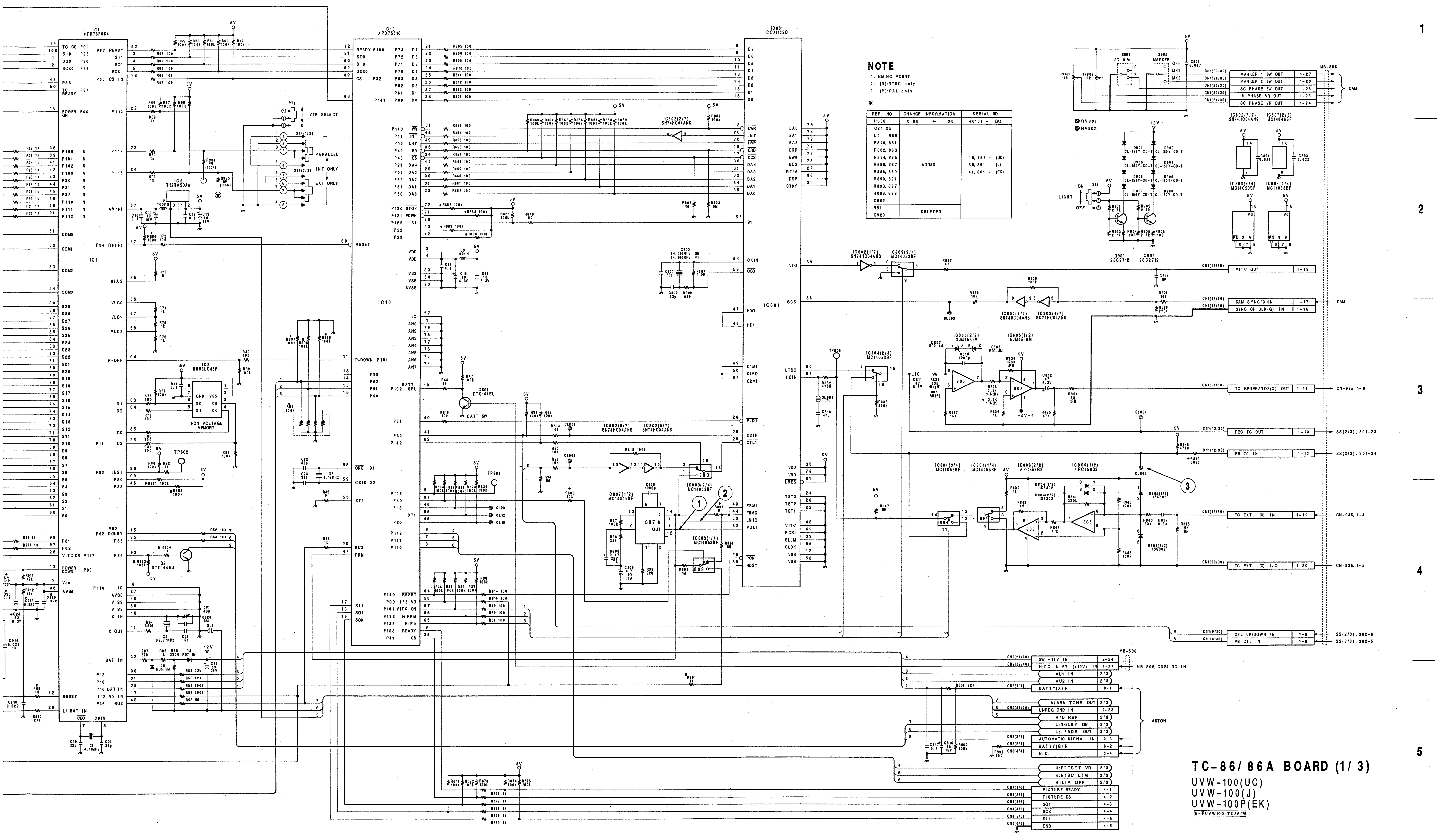
RECモード…75% COLOR BARSの記録状態。
PBモード…..アライメントテープCR5-1BのCOLOR BARS部分の再生状態。
REC mode…… Record the 75% color bars signal.
PB mode……… Play back the color bars signal portion of the alignment tape CR5-1B (for NTSC) / CR5-1BPS (for PAL).


① IC807-pin4 REC mode 5.2Vp-p
103µs (for NTSC)
125µs (for PAL)
② REC mode
IC807-pin3
5.2Vp-p
IC807-pin14
5.2Vp-p
33.3 ms (for NTSC)
40 ms (for PAL)
③ ■ CL805 PB LTC PB mode 5.6Vp-p

TC GENERATOR AUDIO AMP


MB-506
SS(2/3), 301-27
SS(2/3), 301-30
SS(2/3), 301-29
SS(2/3), 301-28
DD CONV, 1-7
SS(2/3), 301-26
POWER SW
SS(1/3), 301-25
SCS (TC) IN
SD (SY/TC) IN
SD (TC/SY) OUT
SCK (TC) IN
POWER ON (H) OUT
L:TC READY OUT
WARNING LAMP IN
H:SW OFF (+12V) IN
D1 SBR5402S :WARNING
Q1 DTC144EU POWER SW
IC1 μPD78P064
IC10 μPD75516
IC2 RH5RA50AA
IC3 BR93LC46F
NON VOLTAGE MEMORY
ND1
LCD1
TP805
TP801
TP802
VTR SELECT
PARALLEL
INT ONLY
EXT ONLY
L:CTL
H:TC
H:UBIT
CTL
TC
U-BIT
H:REC RUN
L:SET
H:FREE RUN
FREE RUN
SET
REC RUN
L:FREE RUN
DIAG
ADVANCE
SHIFT
RESET
BACK TALLY
ON
OFF
PRESET
REGEN
DATE/TIME
VO-46(3/3), 1-12
SW-655, CN2
CTDM SW OUT
L:CTDM IN
CTDM GND IN
VITC CS OUT
D- GND I/O
REG +5V IN
IC911 S-8054ALR VOLTAGE DETECTOR
Q911 2SA1576
Q913 2SK853
Q914 IMT1US
Q915 DTC144EU
Q916 2SC4177
Q917 IMX1
Q912 IMT1US
BT911 LITHIUM
Q2 DTC144EU
Q801 DTC144EU
BATT SW
IC802(2/7) SN74HC04ANS
IC802(6/7) SN74HC04ANS
IC802(5/7) SN74HC04ANS
IC803(2/4) MC14053BF
IC803(1/4) MC14053BF
IC807(1/2) MC14046BF
X1 4.19MHz
X2 32.77kHz
X3 4.19MHz
X802 14.318MHz (N) 14.300MHz (P)
ss(2/3), 302-7
1/2 VD IN
AU CH-1 ATT
AU CH-2 ATT
AU CAM ATT
①
②

A | B | C | D | E | F | G | H


IC1 μPD78P064
IC10 μPD75516
IC801 CXD1132Q
IC2 RH5RA50AA
IC3 BR93LC46F
NON VOLTAGE MEMORY
Q801 DTC144EU
Q2 DTC144EU
VTR SELECT
PARALLEL
INT ONLY
EXT ONLY
BATT SW
TP801
TP802
TP805
IC802(2/7) SN74HC04ANS
IC802(6/7) SN74HC04ANS
IC802(5/7) SN74HC04ANS
IC802(1/7) SN74HC04ANS
IC802(3/7) SN74HC04ANS
IC802(4/7) SN74HC04ANS
IC803(3/4) MC14053BF
IC803(2/4) MC14053BF
IC803(1/4) MC14053BF
IC807(1/2) MC14046BF
IC804(2/4) MC14053BF
IC804(3/4) MC14053BF
IC804(1/4) MC14053BF
IC805(2/2) NJM4558M
IC805(1/2) NJM4558M
IC806(2/2) μPC358G2
IC806(1/2) μPC358G2
IC802(7/7) SN74HC04ANS
IC807(2/2) MC14046BF
IC803(4/4) MC14053BF
IC804(4/4) MC14053BF
Q901 2SC2712
Q902 2SC2712
S901 SC 0/I
S902 MARKER
LIGHT ON OFF
RV901:
RV902:
①
②
③
MARKER 1 SW OUT 1-27
MARKER 2 SW OUT 1-26
SC PHASE SW OUT 1-25
H PHASE VR OUT 1-23
SC PHASE VR OUT 1-24
MB-506
CAM
VITC OUT 1-18
CAM SYNC(X)IN 1-17
SYNC, CF, BLK(G) IN 1-16
TC GENERATOR(X) OUT 1-21
CN-935, 1-6
REC TC OUT 1-13
SS(2/3), 301-23
PB TC IN 1-12
SS(2/3), 301-24
TC EXT. (X) IN 1-19
CN-935, 1-4
TC EXT. (G) I/O 1-20
CN-935, 1-5
CTL UP/DOWN IN 1-9
SS(2/3), 302-6
PB CTL IN 1-8
SS(3/3), 302-5
SW +12V IN 2-24
H:DC INLET (+12V) IN 2-27
MB-506, CN24, DC IN
AU1 IN 2/3
AU2 IN 2/3
BATTY(X)IN 3-1
ALARM TONE OUT 2/3
UNREG GND IN 2-23
A/D REF 2/3
L:DOLBY ON 2/3
L:-60DB OUT 2/3
AUTOMATIC SIGNAL IN 3-3
BATTY(G)IN 3-2
N.C. 3-4
ANTON
H:PRESET VR 2/3
H:NTSC LIM 2/3
H:LIM OFF 2/3
FIXTURE READY 4-1
FIXTURE CS 4-2
SO1 4-3
SCK 4-4
SI1 4-5
GND 4-6
1
2
3
4
5
E
F
G
H
I
J
K
L

NOTE

1. NM:NO MOUNT
2. (N):NTSC only
3. (P):PAL only

*

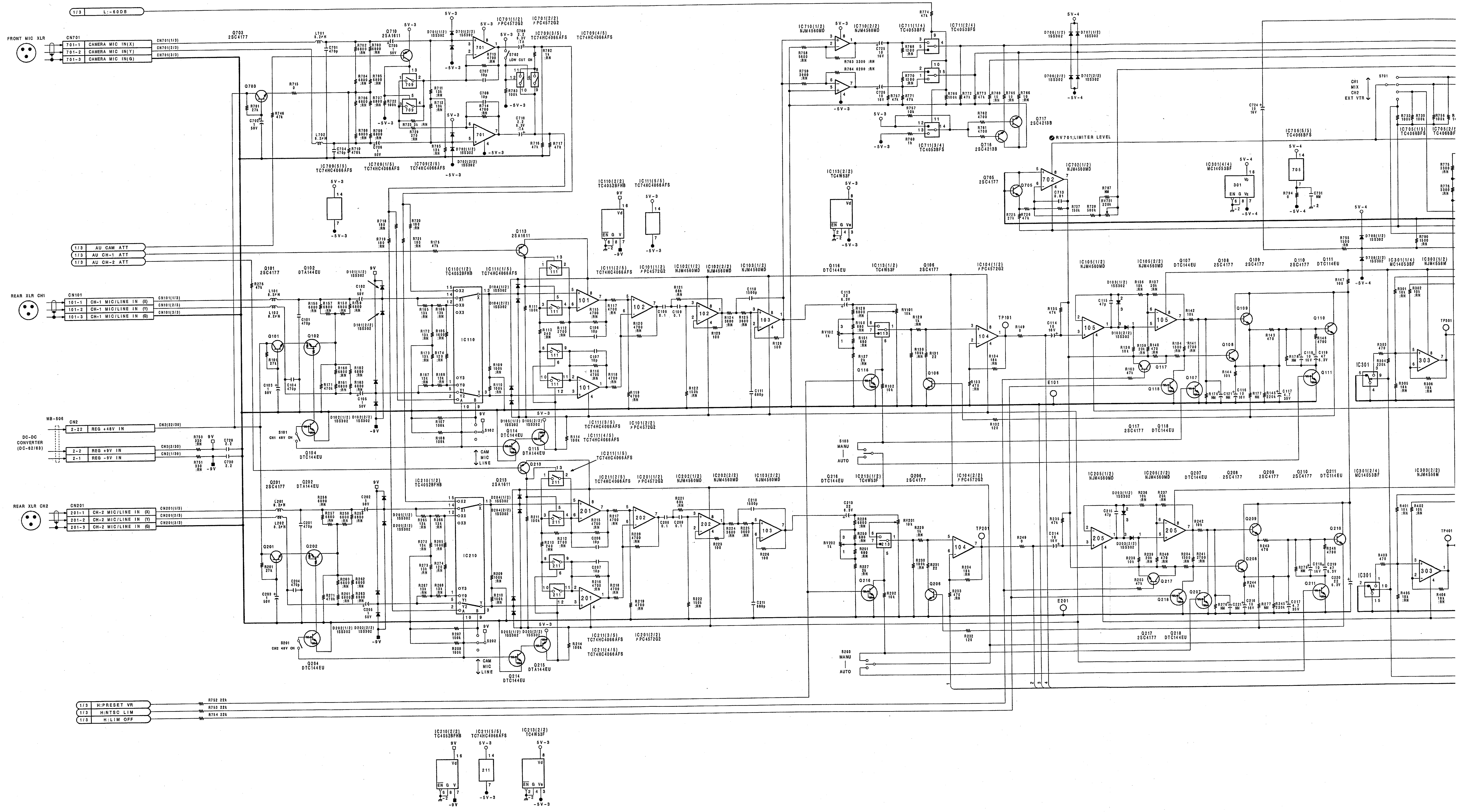
REF. NO.	CHANGE INFORMATION	SERIAL NO.
R833	3.3K ⟶ 3K	40101 - (EK)
C24, 25 L4, R89 R849, 881 R882, 883 R884, 885 R886, 887 R888, 889 R890, 891 R893, 897 R898, 899 C902	ADDED	10, 756 - (UC) 30, 361 - (J) 41, 001 - (EK)
RB1 C920	DELETED	

TC-86/ 86A BOARD (1/ 3)

UVW-100(UC)
UVW-100(J)
UVW-100P(EK)

B-¥UVW100-TC86/M

TC GENERATOR AUDIO AMP

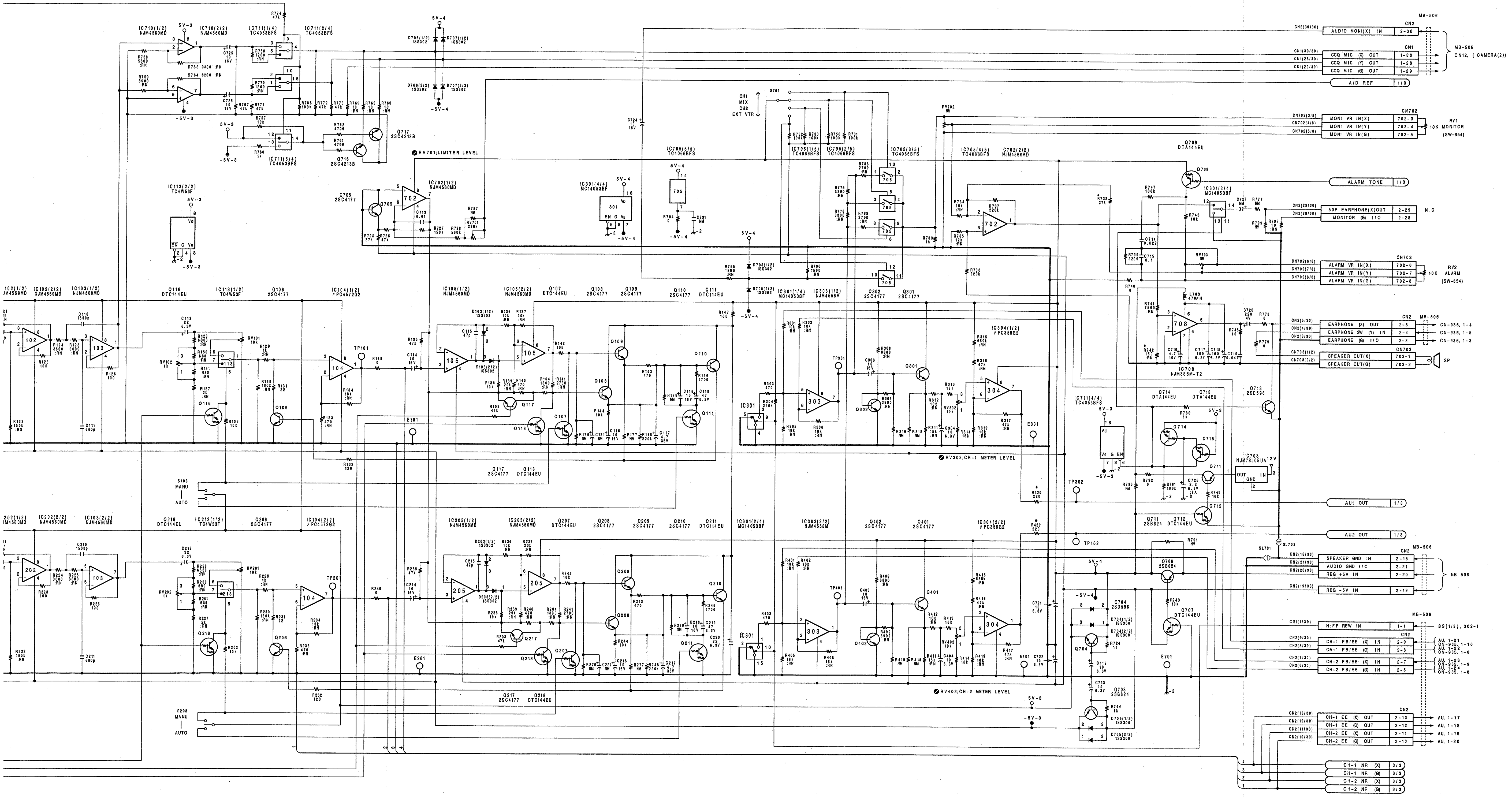

1/3 L:-60DB
FRONT MIC XLR
CN701
701-1 CAMERA MIC IN(X)
701-2 CAMERA MIC IN(Y)
701-3 CAMERA MIC IN(G)
1/3 AU CAM ATT
1/3 AU CH-1 ATT
1/3 AU CH-2 ATT
REAR XLR CH1
CN101
101-1 CH-1 MIC/LINE IN (X)
101-2 CH-1 MIC/LINE IN (Y)
101-3 CH-1 MIC/LINE IN (G)
MB-506
CN2
2-22 REG +48V IN
DC-DC CONVERTER (DC-62/63)
2-2 REG +9V IN
2-1 REG -9V IN
REAR XLR CH2
CN201
201-1 CH-2 MIC/LINE IN (X)
201-2 CH-2 MIC/LINE IN (Y)
201-3 CH-2 MIC/LINE IN (G)
1/3 H:PRESET VR
1/3 H:NTSC LIM
1/3 H:LIM OFF
S101 CH1 48V ON
S201 CH2 48V ON
S102 CAM MIC LINE
S202 CAM MIC LINE
S702 LOW CUT ON
S103 MANU AUTO
S203 MANU AUTO
S701 CH1 MIX CH2 EXT VTR
RV701:LIMITER LEVEL
TP101
TP201
TP301
TP401
E101
E201
IC110
IC210
IC301

NOTE

*

REF. NO.	CHANGE INFORMATION	SERIAL NO.
R738	33K → 27K	10,201 -(UC) 30,101 -(J) 40,001 -(EK)
R742	130 → 150	
R320, 420	ADDED	10,756 -(UC) 30,361 -(J) 41,001 -(EK)

1. NM:NO MOUNT
2. (N):NTSC only
3. (P):PAL only



MB-506
CN2
AUDIO MONI(X) IN 2-30
CN1
CCQ MIC (X) OUT 1-30
CCQ MIC (Y) OUT 1-28
CCQ MIC (G) OUT 1-29
MB-506
CN12, (CAMERA(2))
A/D REF 1/3
CN702
MONI VR IN(X) 702-3
MONI VR IN(Y) 702-4
MONI VR IN(G) 702-5
RV1
10K MONITOR
(SW-654)
ALARM TONE 1/3
50P EARPHONE(X)OUT 2-29
MONITOR (G) I/O 2-28
N.C
ALARM VR IN(X) 702-6
ALARM VR IN(Y) 702-7
ALARM VR IN(G) 702-8
RV2
10K ALARM
(SW-654)
EARPHONE (X) OUT 2-5
EARPHONE SW (Y) IN 2-4
EARPHONE (G) I/O 2-3
CN-936, 1-4
CN-936, 1-5
CN-936, 1-3
CN703
SPEAKER OUT(X) 703-1
SPEAKER OUT(G) 703-2
SP
AU1 OUT 1/3
AU2 OUT 1/3
SPEAKER GND IN 2-18
AUDIO GND I/O 2-21
REG +5V IN 2-20
REG -5V IN 2-19
H:FF REW IN 1-1
SS(1/3), 302-1
CH-1 PB/EE (X) IN 2-9
CH-1 PB/EE (G) IN 2-8
CH-2 PB/EE (X) IN 2-7
CH-2 PB/EE (G) IN 2-6
CH-1 EE (X) OUT 2-13
CH-1 EE (G) OUT 2-12
CH-2 EE (X) OUT 2-11
CH-2 EE (G) OUT 2-10
AU, 1-17
AU, 1-18
AU, 1-19
AU, 1-20
CH-1 NR (X) 3/3
CH-1 NR (G) 3/3
CH-2 NR (X) 3/3
CH-2 NR (G) 3/3
IC710(1/2) NJM4560MD
IC710(2/2) NJM4560MD
IC711(1/4) TC4053BFS
IC711(2/4) TC4053BFS
IC711(3/4) TC4053BFS
Q717 2SC4213B
Q716 2SC4213B
RV701;LIMITER LEVEL
IC702(1/2) NJM4560MD
Q705 2SC4177
IC301(4/4) MC14053BF
IC705(5/5) TC4066BFS
S701
CH1 MIX CH2 EXT VTR
IC705(1/5) TC4066BFS
IC705(2/5) TC4066BFS
IC705(3/5) TC4066BFS
IC705(4/5) TC4066BFS
IC702(2/2) NJM4560MD
Q709 DTA144EU
IC301(3/4) MC14053BF
IC113(2/2) TC4W53F
IC708 NJM386M-T2
IC304(1/2) FPC358G2
IC303(1/2) NJM4558M
IC301(1/4) MC14053BF
Q302 2SC4177
Q301 2SC4177
RV302;CH-1 METER LEVEL
IC711(4/4) TC4053BFS
Q714 DTA144EU
Q715 DTA144EU
Q713 2SD596
IC709 NJM78L05UA
Q711 2SB624
Q712 DTC144EU
IC102(1/2) NJM4560MD
IC102(2/2) NJM4560MD
IC103(1/2) NJM4560MD
Q116 DTC144EU
IC113(1/2) TC4W53F
Q106 2SC4177
IC104(1/2) FPC4572G2
IC105(1/2) NJM4560MD
IC105(2/2) NJM4560MD
Q107 DTC144EU
Q108 2SC4177
Q109 2SC4177
Q110 2SC4177
Q111 DTC144EU
Q117 2SC4177
Q118 DTC144EU
S103 MANU AUTO
IC202(1/2) NJM4560MD
IC202(2/2) NJM4560MD
IC103(2/2) NJM4560MD
Q216 DTC144EU
IC213(1/2) TC4W53F
Q206 2SC4177
IC104(2/2) FPC4572G2
IC205(1/2) NJM4560MD
IC205(2/2) NJM4560MD
Q207 DTC144EU
Q208 2SC4177
Q209 2SC4177
Q210 2SC4177
Q211 DTC144EU
IC301(2/4) MC14053BF
IC303(2/2) NJM4558M
Q402 2SC4177
Q401 2SC4177
IC304(2/2) FPC358G2
RV402;CH-2 METER LEVEL
Q706 2SB624
Q707 DTC144EU
Q704 2SD596
Q708 2SB624
Q217 2SC4177
Q218 DTC144EU
S203 MANU AUTO
TP101 TP201 TP301 TP401 TP302 TP402
E101 E201 E301 E401 E701
SL701 SL702

TC-86/ 86A BOARD (2/ 3)

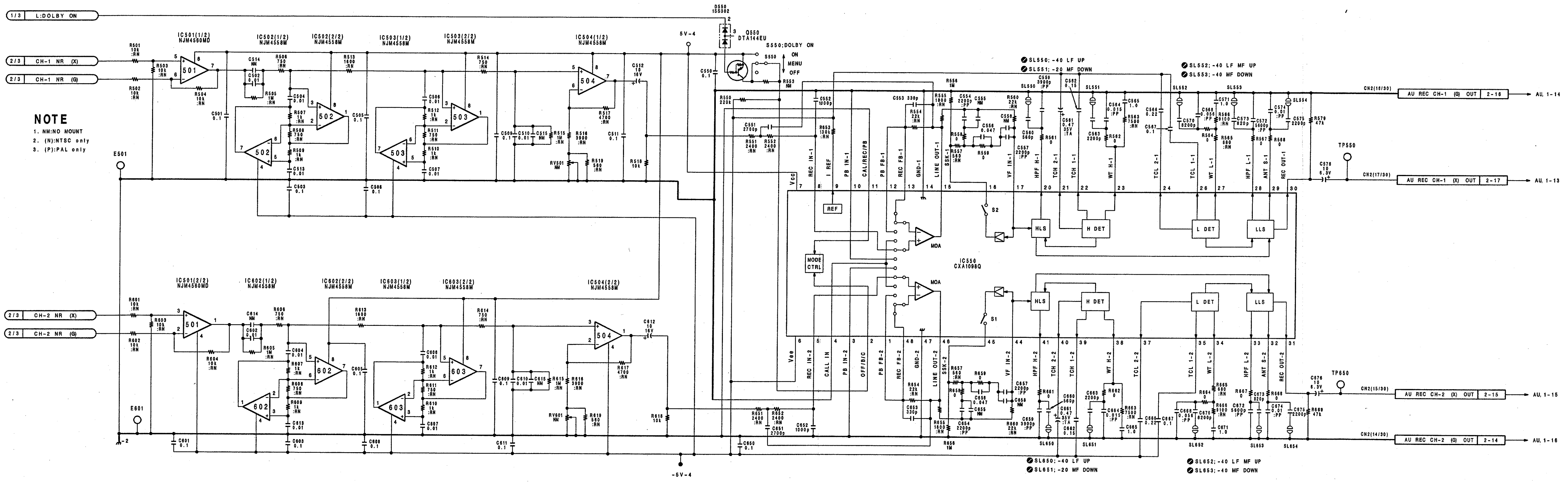
UVW-100(UC)
UVW-100(J)
UVW-100P(EK)

B-¥UVW100-TC86/M

UVW-100 (J)
UVW-100 (UC)
UVW-100P (EK)

TC GENERATOR AUDIO AMP

1
2
3
4
5


1/3 L:DOLBY ON
2/3 CH-1 NR (X)
2/3 CH-1 NR (G)
2/3 CH-2 NR (X)
2/3 CH-2 NR (G)
IC501(1/2) NJM4560MD
IC502(1/2) NJM4558M
IC502(2/2) NJM4558M
IC503(1/2) NJM4558M
IC503(2/2) NJM4558M
IC504(1/2) NJM4558M
IC501(2/2) NJM4560MD
IC602(1/2) NJM4558M
IC602(2/2) NJM4558M
IC603(1/2) NJM4558M
IC603(2/2) NJM4558M
IC504(2/2) NJM4558M
D550 1SS302
Q550 DTA144EU
S550:DOLBY ON
ON
MENU
OFF
5V-4
-5V-4
E501
E601
IC550 CXA1098Q
REF
MODE CTRL
MOA
HLS
H DET
L DET
LLS
S1
S2
TP550
TP650
⊘SL550:-40 LF UP
⊘SL551:-20 MF DOWN
⊘SL552:-40 LF MF UP
⊘SL553:-40 MF DOWN
⊘SL650:-40 LF UP
⊘SL651:-20 MF DOWN
⊘SL652:-40 LF MF UP
⊘SL653:-40 MF DOWN
CN2(16/30) AU REC CH-1 (G) OUT 2-16 AU, 1-14
CN2(17/30) AU REC CH-1 (X) OUT 2-17 AU, 1-13
CN2(15/30) AU REC CH-2 (X) OUT 2-15 AU, 1-15
CN2(14/30) AU REC CH-2 (G) OUT 2-14 AU, 1-16

NOTE

1. NM:NO MOUNT
2. (N):NTSC only
3. (P):PAL only

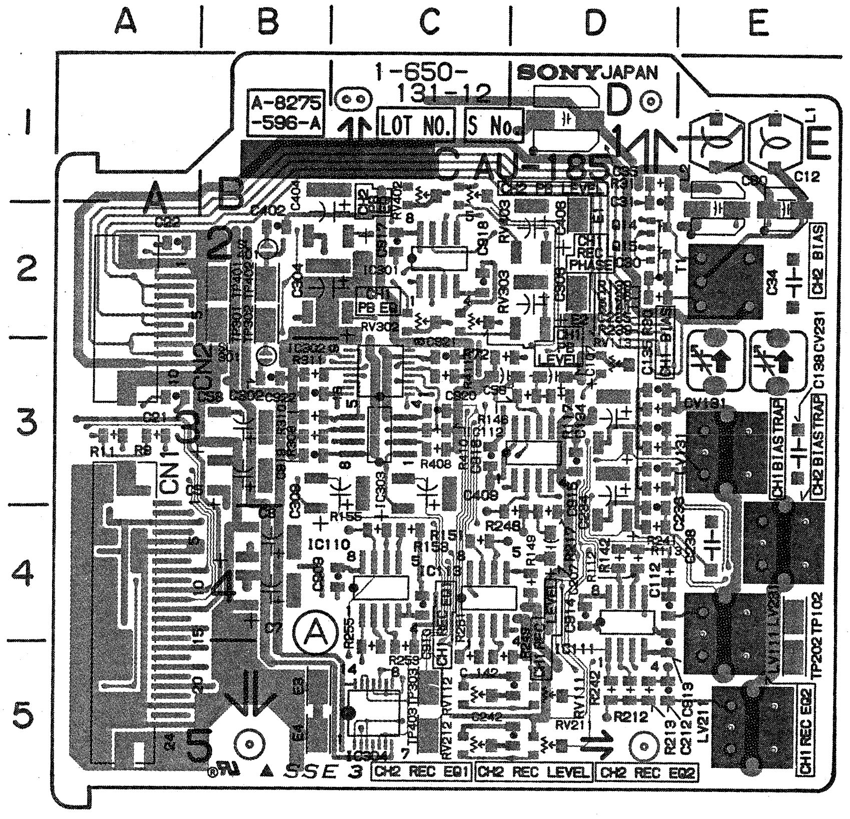
TC-86/86A BOARD (3/3)

UVW-100(UC)
UVW-100(J)
UVW-100P(EK)

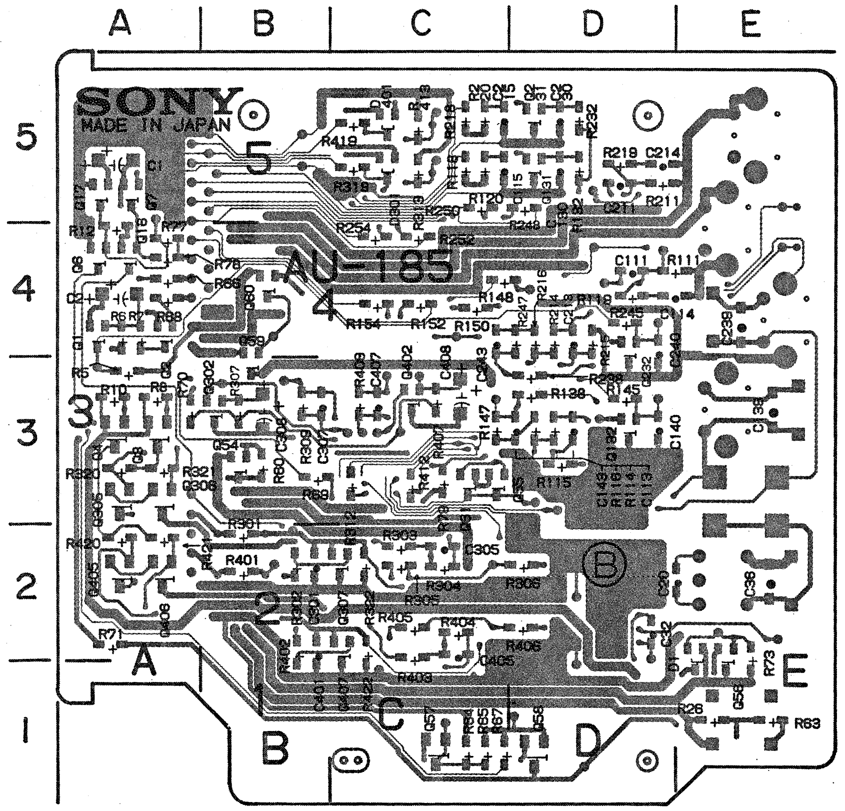
B-YUVW100-TC86/M

AU-185/185P BOARD

SERIAL No. 11366 and higher (UC)
30491 and higher (J)
41801 and higher (EK)


A
B
C
D
E
1
2
3
4
5
1-650-131-12
SONY JAPAN
A-8275-596-A
LOT NO.
S No.
AU-185
CN1
CN2
CH2 PB LEVEL
CH2 BIAS
CH1 BIAS
CH1 BIASTRAP
CH2 BIASTRAP
PHASE
CV131
CV231
LV111
LV211
LV231
TP102
TP202
CH1 REC EQ2
CH2 REC EQ1
CH2 REC LEVEL
CH2 REC EQ2
SSE 3

-A SIDE-


A
B
C
D
E
1
2
3
4
5
SONY
MADE IN JAPAN
AU-185

-B SIDE-

AU-185/185P(1-650-131-12)

*; B SIDE

CN1	A-4	*Q232	D-3
CN2	A-2	*Q302	B-3
		*Q305	A-3
CV131	E-3	*Q306	A-3
CV231	E-3	*Q307	C-2
		*Q402	C-3
*D1	E-1	*Q405	A-2
*D301	C-5	*Q406	A-2
*D401	C-5	*Q407	C-2
E1	D-2	RV111	D-5
E2	D-2	RV112	C-5
E3	B-5	RV113	D-3
E4	B-5	RV211	D-5
		RV212	C-5
IC110	C-4	RV302	C-2
IC111	D-4	RV303	C-2
IC112	D-3	RV402	C-1
IC113	C-4	RV403	C-1
IC301	C-2		
IC302	C-3	TP102	E-4
IC303	C-3	TP202	E-5
IC304	C-5	TP301	B-2
		TP302	B-2
LV111	E-4	TP303	C-5
LV131	E-3	TP401	B-2
LV211	E-5	TP402	B-2
LV231	E-4	TP403	C-5
L1	E-1	T1	E-2
L2	E-1		

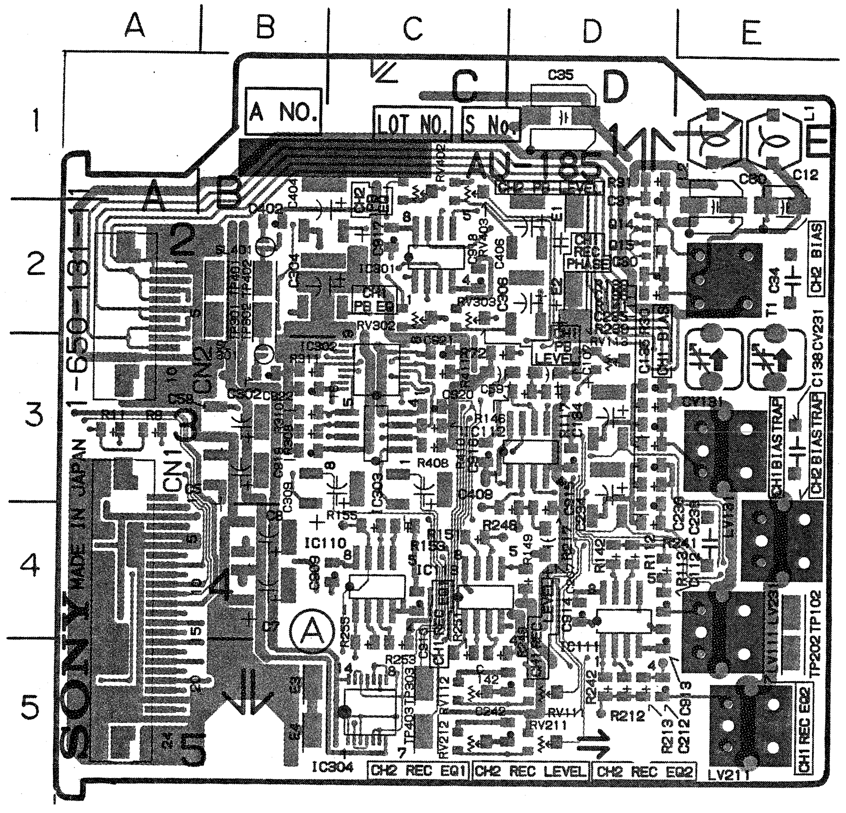
*; B SIDE

*Q1	A-4
*Q2	A-4
*Q3	A-3
*Q4	A-3
*Q6	A-4
*Q7	D-5
Q14	D-5
Q15	D-4
*Q16	A-4
*Q17	A-5
*Q54	B-3
*Q55	C-3
*Q56	E-1
*Q59	B-3
*Q60	B-4
*Q61	C-3
*Q131	D-5
*Q132	D-3
*Q231	B-5

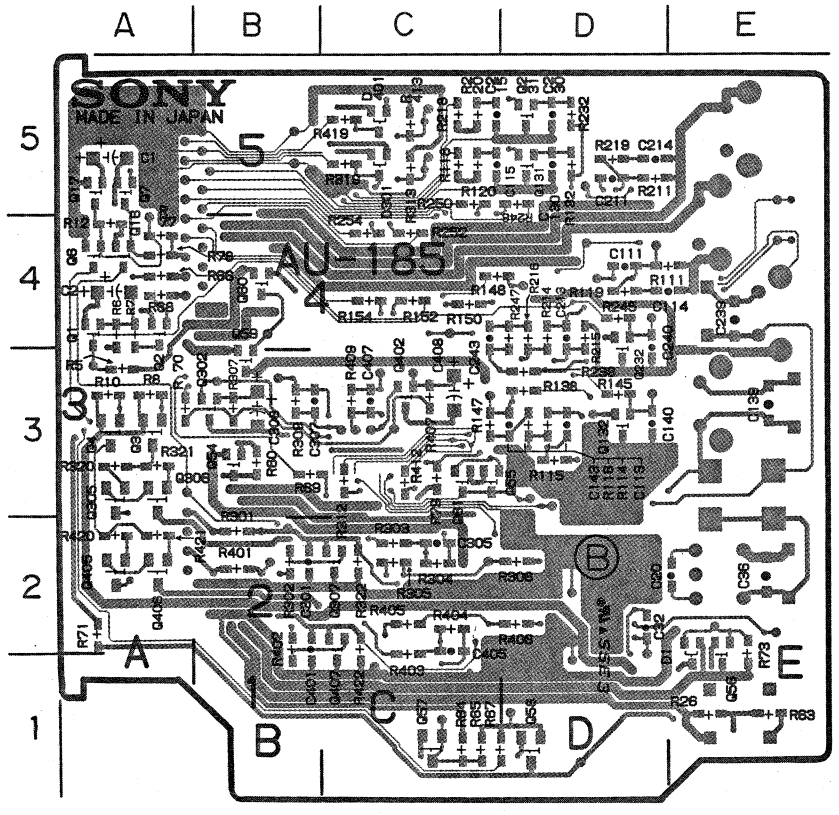
AU-185/185P

1-650-131-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

SERIAL No. 10001-11365 (UC)
30001-30490 (J)
40001-41800 (EK)


A
B
C
D
E
1
2
3
4
5
1-650-131
A NO.
LOT NO.
S No.
AU-185
SONY
MADE IN JAPAN
CN1
CN2
CH2 PB LEVEL
CH2 BIAS
CH1 BIAS
CH1 BIASTRAP
CH2 BIASTRAP
PHASE
CV131
CV231
LV111
LV211
LV231
TP102
TP202
IC304
CH1 REC EQ2
CH2 REC EQ1
CH2 REC LEVEL
CH2 REC EQ2

-A SIDE-


A
B
C
D
E
1
2
3
4
5
SONY
MADE IN JAPAN
AU-185

-B SIDE-

AU-185/185P(1-650-131-11)

*; B SIDE

CN1	A-4	*Q232	D-3
CN2	A-2	*Q302	B-3
		*Q305	A-3
CV131	E-3	*Q306	A-3
CV231	E-3	*Q307	C-2
		*Q402	C-3
*D1	E-1	*Q405	A-2
*D301	C-5	*Q406	A-2
*D401	C-5	*Q407	C-2
E1	D-2	RV111	D-5
E2	D-2	RV112	C-5
E3	B-5	RV113	D-3
E4	B-5	RV211	D-5
		RV212	C-5
IC110	C-4	RV302	C-2
IC111	D-4	RV303	C-2
IC112	D-3	RV402	C-1
IC113	C-4	RV403	C-1
IC301	C-2		
IC302	C-3	TP102	E-4
IC303	C-3	TP202	E-5
IC304	C-5	TP301	B-2
		TP302	B-2
LV111	E-4	TP303	C-5
LV131	E-3	TP401	B-2
LV211	E-5	TP402	B-2
LV231	E-4	TP403	C-5
L1	E-1	T1	E-2
L2	E-1		

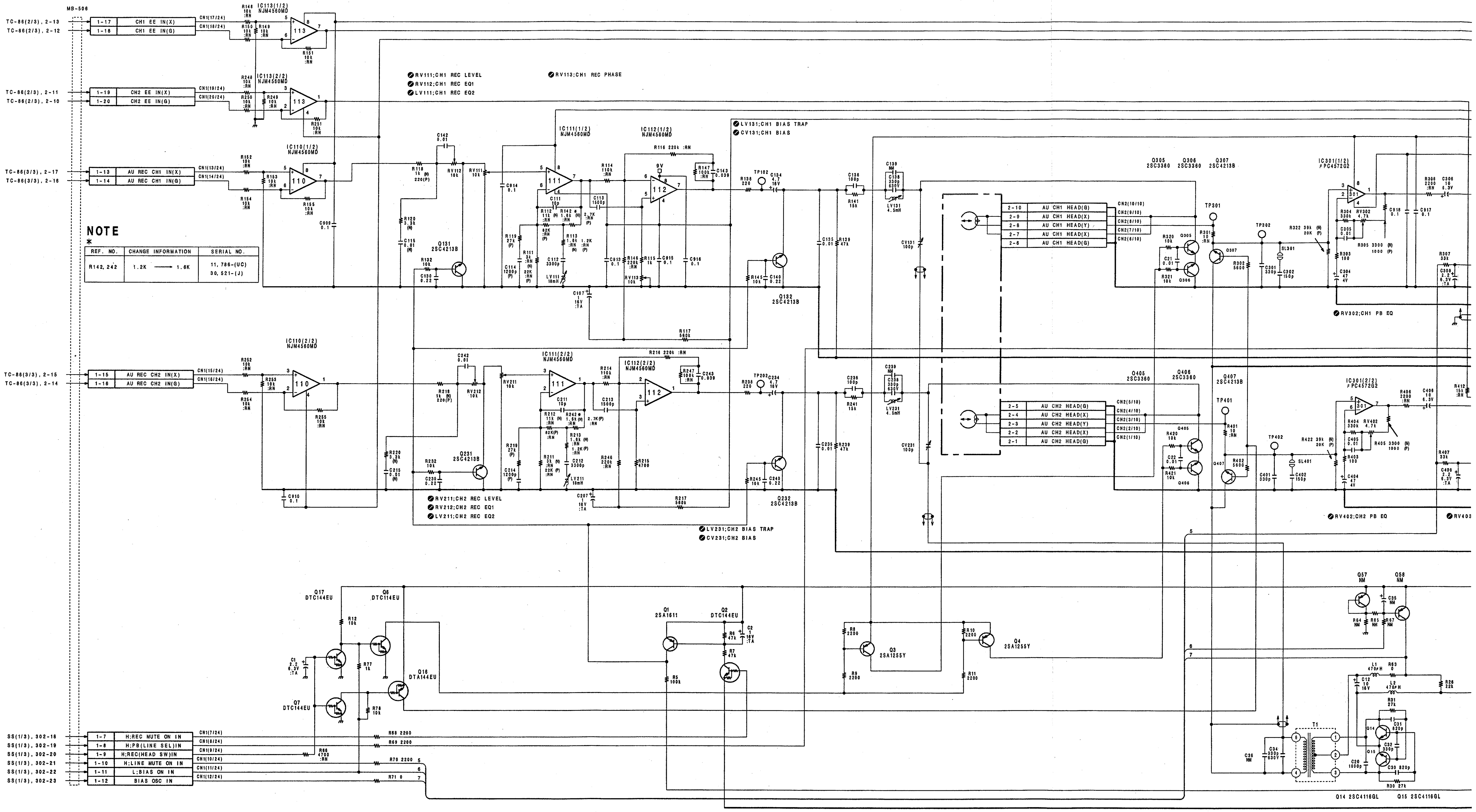
*; B SIDE

*Q1	A-4
*Q2	A-4
*Q3	A-3
*Q4	A-3
*Q6	A-4
*Q7	D-5
Q14	D-5
Q15	D-4
*Q16	A-4
*Q17	A-5
*Q54	B-3
*Q55	C-3
*Q56	E-1
*Q59	B-3
*Q60	B-4
*Q61	C-3
*Q131	D-5
*Q132	D-3
*Q231	B-5

AU-185/185P

1-650-131-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

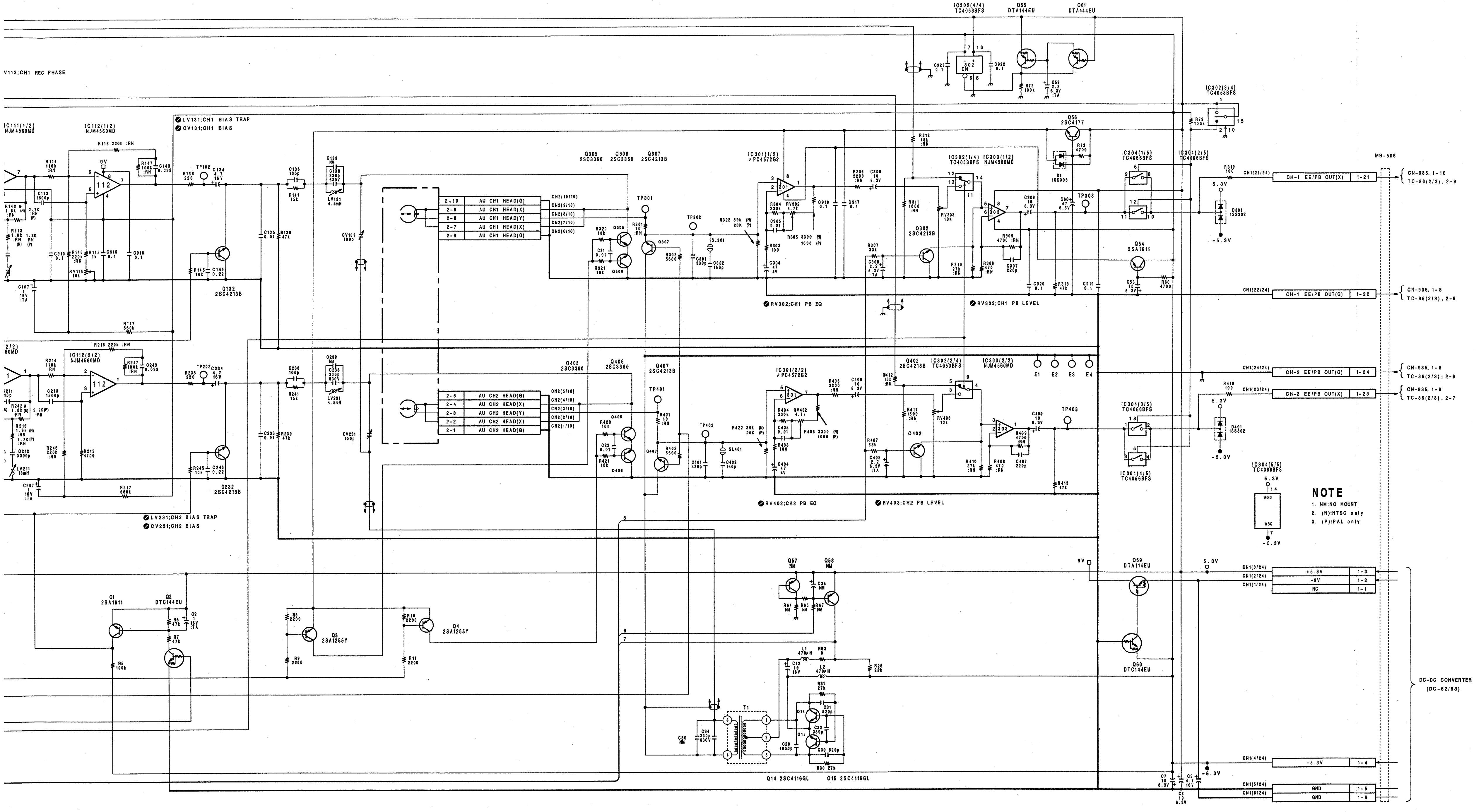
LAU REC/PB AMP


MB-506
TC-86(2/3), 2-13
TC-86(2/3), 2-12
1-17 CH1 EE IN(X)
1-18 CH1 EE IN(G)
IC113(1/2) NJM4560MD
TC-86(2/3), 2-11
TC-86(2/3), 2-10
1-19 CH2 EE IN(X)
1-20 CH2 EE IN(G)
IC113(2/2) NJM4560MD
TC-86(3/3), 2-17
TC-86(3/3), 2-16
1-13 AU REC CH1 IN(X)
1-14 AU REC CH1 IN(G)
CN1(13/24)
CN1(14/24)
IC110(1/2) NJM4560MD
TC-86(3/3), 2-15
TC-86(3/3), 2-14
1-15 AU REC CH2 IN(X)
1-16 AU REC CH2 IN(G)
IC110(2/2) NJM4560MD
RV111;CH1 REC LEVEL
RV112;CH1 REC EQ1
LV111;CH1 REC EQ2
RV113;CH1 REC PHASE
IC111(1/2) NJM4560MD
IC112(1/2) NJM4560MD
LV131;CH1 BIAS TRAP
CV131;CH1 BIAS
Q131 2SC4213B
Q132 2SC4213B
IC111(2/2) NJM4560MD
IC112(2/2) NJM4560MD
Q231 2SC4213B
Q232 2SC4213B
RV211;CH2 REC LEVEL
RV212;CH2 REC EQ1
LV211;CH2 REC EQ2
LV231;CH2 BIAS TRAP
CV231;CH2 BIAS
2-10 AU CH1 HEAD(G)
2-9 AU CH1 HEAD(X)
2-8 AU CH1 HEAD(Y)
2-7 AU CH1 HEAD(X)
2-6 AU CH1 HEAD(G)
2-5 AU CH2 HEAD(G)
2-4 AU CH2 HEAD(X)
2-3 AU CH2 HEAD(Y)
2-2 AU CH2 HEAD(X)
2-1 AU CH2 HEAD(G)
Q305 2SC3360
Q306 2SC3360
Q307 2SC4213B
IC301(1/2) μPC4572G2
RV302;CH1 PB EQ
Q405 2SC3360
Q406 2SC3360
Q407 2SC4213B
IC301(2/2) μPC4572G2
RV402;CH2 PB EQ
TP102
TP202
TP301
TP302
TP401
TP402
Q17 DTC144EU
Q6 DTC114EU
Q16 DTA144EU
Q7 DTC144EU
Q1 2SA1611
Q2 DTC144EU
Q3 2SA1255Y
Q4 2SA1255Y
Q57 NM
Q58 NM
T1
Q14 2SC4116GL
Q15 2SC4116GL
SS(1/3), 302-18
SS(1/3), 302-19
SS(1/3), 302-20
SS(1/3), 302-21
SS(1/3), 302-22
SS(1/3), 302-23
1-7 H;REC MUTE ON IN
1-8 H;PB(LINE SEL)IN
1-9 H;REC(HEAD SW)IN
1-10 H;LINE MUTE ON IN
1-11 L;BIAS ON IN
1-12 BIAS OSC IN
CN1(7/24)
CN1(8/24)
CN1(9/24)
CN1(10/24)
CN1(11/24)
CN1(12/24)
R68 2200
R69 2200
R66 4700 :RN
R70 2200
R71 0

NOTE

*

REF. NO.	CHANGE INFORMATION	SERIAL NO.
R142, 242	1.2K ——→ 1.6K	11, 786-(UC) 30, 521-(J)


RV113:CH1 REC PHASE
IC111(1/2) NJM4560MD
IC112(1/2) NJM4560MD
LV131:CH1 BIAS TRAP
CV131:CH1 BIAS
LV231:CH2 BIAS TRAP
CV231:CH2 BIAS
IC112(2/2) NJM4560MD
Q132 2SC4213B
Q232 2SC4213B
Q305 2SC3360
Q306 2SC3360
Q307 2SC4213B
Q405 2SC3360
Q406 2SC3360
Q407 2SC4213B
AU CH1 HEAD(G)
AU CH1 HEAD(X)
AU CH1 HEAD(Y)
AU CH1 HEAD(X)
AU CH1 HEAD(G)
AU CH2 HEAD(G)
AU CH2 HEAD(X)
AU CH2 HEAD(Y)
AU CH2 HEAD(X)
AU CH2 HEAD(G)
TP301
TP302
TP303
TP401
TP402
TP403
IC301(1/2) μPC4572G2
IC301(2/2) μPC4572G2
IC302(1/4) TC4053BFS
IC303(1/2) NJM4580MD
IC302(2/4) TC4053BFS
IC303(2/2) NJM4580MD
IC302(4/4) TC4053BFS
IC302(3/4) TC4053BFS
Q55 DTA144EU
Q61 DTA144EU
Q56 2SC4177
Q302 2SC4213B
Q402 2SC4213B
Q54 2SA1611
IC304(1/5) TC4066BFS
IC304(2/5) TC4066BFS
IC304(3/5) TC4066BFS
IC304(4/5) TC4066BFS
IC304(5/5) TC4066BFS
RV302:CH1 PB EQ
RV303:CH1 PB LEVEL
RV402:CH2 PB EQ
RV403:CH2 PB LEVEL
E1 E2 E3 E4
MB-505
CH-1 EE/PB OUT(X)
CH-1 EE/PB OUT(G)
CH-2 EE/PB OUT(G)
CH-2 EE/PB OUT(X)
CN-935, 1-10 TC-86(2/3), 2-9
CN-935, 1-8 TC-86(2/3), 2-8
CN-935, 1-6 TC-86(2/3), 2-6
CN-935, 1-9 TC-86(2/3), 2-7
Q1 2SA1611
Q2 DTC144EU
Q3 2SA1255Y
Q4 2SA1255Y
Q57 NM
Q58 NM
T1
Q14 2SC4116GL
Q15 2SC4116GL
Q59 DTA114EU
Q60 DTC144EU
+5.3V
+9V
NC
-5.3V
GND
GND
DC-DC CONVERTER (DC-62/63)

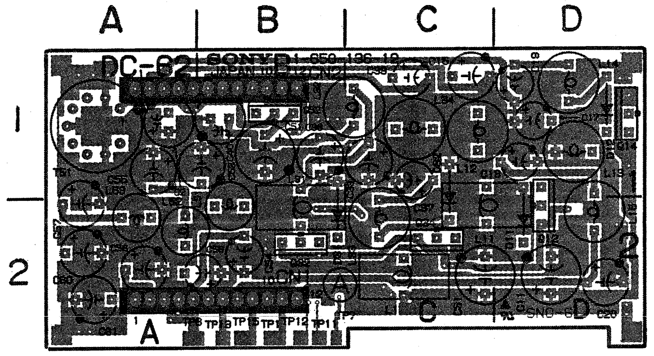
NOTE
1. NM:NO MOUNT
2. (N):NTSC only
3. (P):PAL only

AU-185/185P BOARD

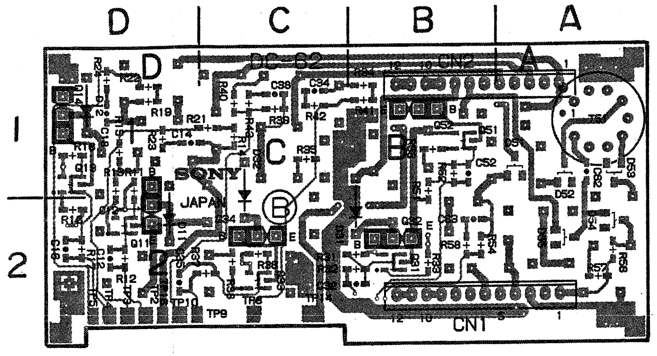
UVW-100(UC)
UVW-100(J)
UVW-100P(EK)
B-YUVW100-AU185/M

DC-62/63 BOARD

SERIAL No. 11366 and higher (UC)
30491 and higher (J)
41801 and higher (EK)


A
B
C
D
1
2
DC-62
SONY

DC-62 -A SIDE-
1-650-136-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


D
C
B
A
1
2
DC-62
SONY
JAPAN
CN2
CN1

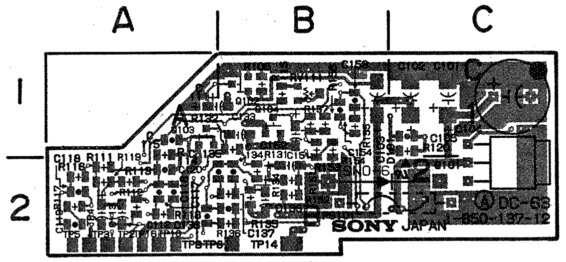
DC-62 -B SIDE-
1-650-136-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

DC-62(1-650-136-12)

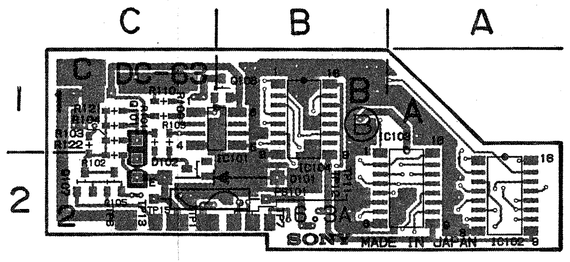
*; B SIDE

*CN1	A-2
*CN2	A-1
D11	D-2
D12	D-1
D31	B-2
D32	C-1
*D51	A-1
*D52	A-1
*D53	A-1
*D54	A-2
*D55	A-2
L1	C-2
L11	C-2
L12	C-1
L13	D-1
L14	D-1
L15	D-2
L31	B-2
L32	C-1
L33	C-2
L34	C-1
L51	B-2
L52	A-2
L53	A-2
*Q11	D-2
Q12	D-2
*Q13	D-2
Q14	D-1
*Q31	B-2
Q32	B-2
*Q33	C-2
Q34	C-2
*Q51	B-1
Q52	B-1
T51	A-1

*; B SIDE


A
B
C
1
2
DC-63
1-650-137-12
SONY
JAPAN

DC-63 -A SIDE-
1-650-137-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


C
B
A
1
2
DC-63
SONY
MADE IN JAPAN

DC-63 -B SIDE-
1-650-137-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

DC-63(1-650-137-12)

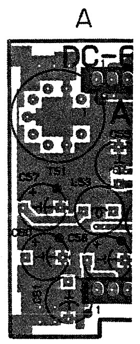
*; B SIDE

D101	B-2
*D102	C-2
*IC101	C-1
*IC102	A-2
*IC103	A-2
*IC104	B-1
*PS101	C-2
Q101	C-2
Q102	B-1
Q103	A-1
Q104	B-1
*Q105	C-2
*Q106	B-1
RV111	B-1

*; B SIDE

DC-62/6

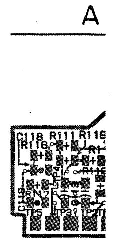
SERIAL



DC-62(1-6

*; B SID

*CN1 A
*CN2 A
D11 D
D12 D
D31 B
D32 C

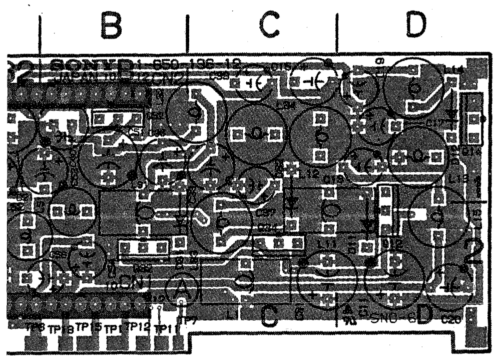


DC-63(1

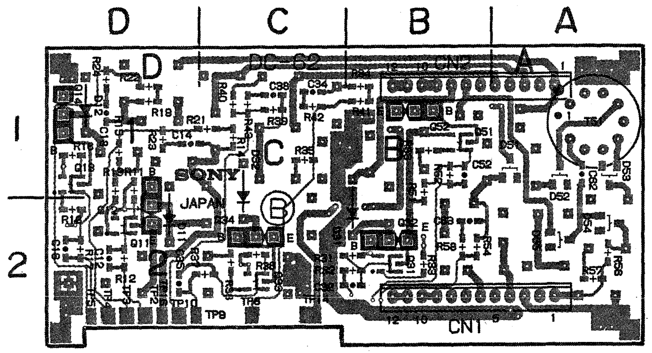
*; B SI

D101
*D102
*IC101
*IC102
*IC103

. 11366 and higher (UC)
30491 and higher (J)
41801 and higher (EK)


B
C
D
SONY
1-650-136-12
CN1
TP11
TP12
TP7
A
C
D
2

DC-62 -A SIDE-
1-650-136-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

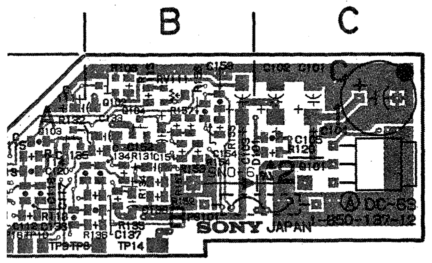

D
C
B
A
1
2
DC-62
CN2
SONY
JAPAN
CN1
TP9
TP10

DC-62 -B SIDE-
1-650-136-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

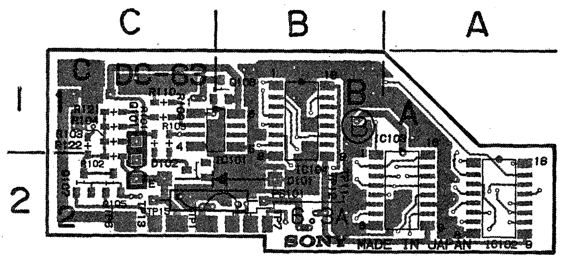
136-12)

*D51	A-1	L11	C-2	L33	C-2	Q12	D-2	*Q51	B-1
*D52	A-1	L12	C-1	L34	C-1	*Q13	D-2	Q52	B-1
*D53	A-1	L13	D-1	L51	B-2	Q14	D-1	T51	A-1
*D54	A-2	L14	D-1	L52	A-2	*Q31	B-2		
*D55	A-2	L15	D-2	L53	A-2	Q32	B-2		
		L31	B-2			*Q33	C-2		
L1	C-2	L32	C-1	*Q11	D-2	Q34	C-2		

*; B SIDE


B
C
SONY JAPAN
Ⓐ DC-63
1-650-137-12
TP14

DC-63 -A SIDE-
1-650-137-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


C
B
A
1
2
DC-63
SONY MADE IN JAPAN

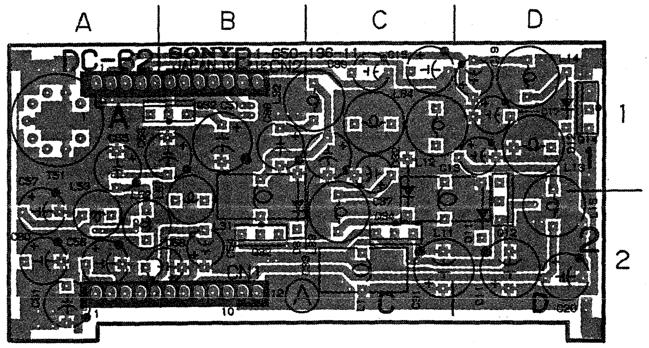
DC-63 -B SIDE-
1-650-137-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

0-137-12)

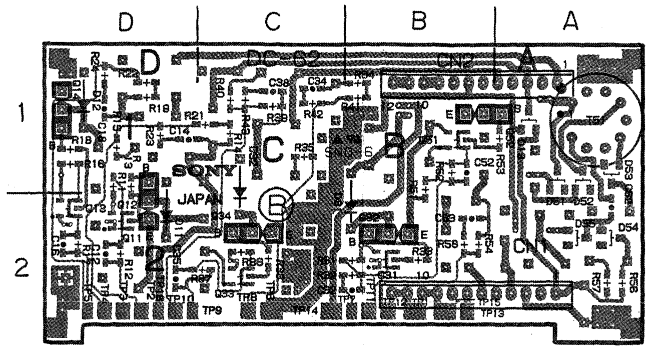
·2		*IC104	B-1	Q103	A-1
·2				Q104	B-1
		*PS101	C-2	*Q105	C-2
·1				*Q106	B-1
·2		Q101	C-2		
·2		Q102	B-1	RV111	B-1

*; B SIDE

SERIAL No. 10001-11365 (UC)
30001-30490 (J)
40001-41800 (EK)


A
B
C
D
1
2
DC-62
SONY
1-650-136-11
T51
Ⓐ
C
D

DC-62 -A SIDE-
1-650-136-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


D
C
B
A
1
2
DC-62
CN2
SONY
JAPAN
TP9
TP14
TP13

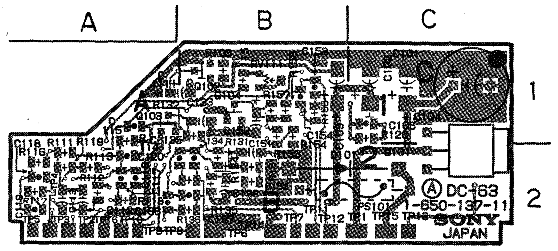
DC-62 -B SIDE-
1-650-136-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

DC-62(1-650-136-11)

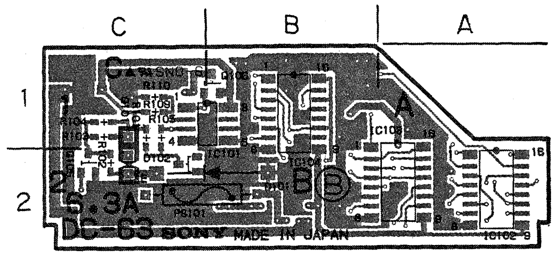
*; B SIDE

*CN1	A-2	*D51	A-1	L11	C-2	L33	C-2	Q12	D-2	*Q51	B-1
*CN2	A-1	*D52	A-1	L12	C-1	L34	C-1	*Q13	D-2	Q52	B-1
		*D53	A-1	L13	D-1	L51	B-2	Q14	D-1	T51	A-1
D11	D-2	*D54	A-2	L14	D-1	L52	A-2	*Q31	B-2		
D12	D-1	*D55	A-2	L15	D-2	L53	A-2	Q32	B-2		
D31	B-2			L31	B-2			*Q33	C-2		
D32	C-1	L1	C-2	L32	C-1	*Q11	D-2	Q34	C-2		

*; B SIDE


A
B
C
1
2
Ⓐ DC-63
1-650-137-11
SONY
JAPAN

DC-63 -A SIDE-
1-650-137-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


C
B
A
1
2
5.3A
DC-63
SONY MADE IN JAPAN

DC-63 -B SIDE-
1-650-137-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

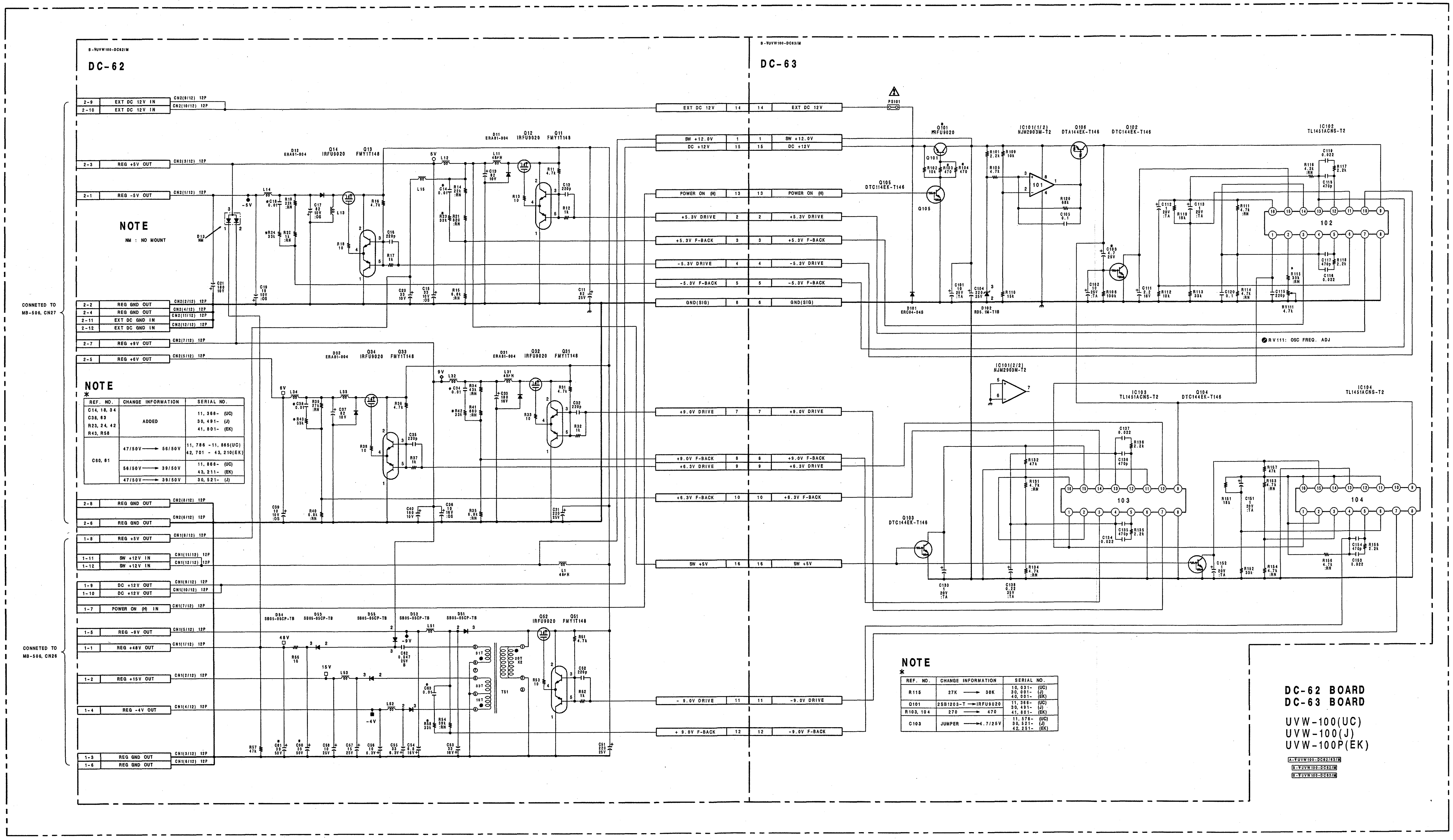
DC-63(1-650-137-11)

*; B SIDE

D101	B-2	*IC104	B-1	Q103	A-1
*D102	C-2			Q104	B-1
		*PS101	C-2	*Q105	C-2
*IC101	C-1			*Q106	B-1
*IC102	A-2	Q101	C-2		
*IC103	A-2	Q102	B-1	RV111	B-1

*; B SIDE

DC-DC CONVERTER


DC-62
DC-63
NOTE
NM : NO MOUNT
CONNETED TO MB-506, CN27
CONNETED TO MB-506, CN26
2-9 EXT DC 12V IN
2-10 EXT DC 12V IN
2-3 REG +5V OUT
2-1 REG -5V OUT
2-2 REG GND OUT
2-4 REG GND OUT
2-11 EXT DC GND IN
2-12 EXT DC GND IN
2-7 REG +9V OUT
2-5 REG +6V OUT
2-8 REG GND OUT
2-6 REG GND OUT
1-8 REG +5V OUT
1-11 SW +12V IN
1-12 SW +12V IN
1-9 DC +12V OUT
1-10 DC +12V OUT
1-7 POWER ON (H) IN
1-5 REG -9V OUT
1-1 REG +48V OUT
1-2 REG +15V OUT
1-4 REG -4V OUT
1-3 REG GND OUT
1-6 REG GND OUT
EXT DC 12V
SW +12.0V
DC +12V
POWER ON (H)
+5.3V DRIVE
+5.3V F-BACK
-5.3V DRIVE
-5.3V F-BACK
GND(SIG)
+9.0V DRIVE
+9.0V F-BACK
+6.3V DRIVE
+6.3V F-BACK
SW +5V
-9.0V DRIVE
+9.0V F-BACK
-9.0V F-BACK
Q101 IRFU9020
IC101(1/2) NJM2903M-T2
IC101(2/2) NJM2903M-T2
Q106 DTA144EK-T146
Q102 DTC144EK-T146
Q105 DTC114EK-T146
Q103 DTC144EK-T146
Q104 DTC144EK-T146
IC102 TL1451ACNS-T2
IC103 TL1451ACNS-T2
IC104 TL1451ACNS-T2
D101 ERC04-04S
D102 RD5.1M-T1B
RV111: OSC FREQ. ADJ
D11 ERA81-004
Q12 IRFU9020
Q11 FMY1T148
D12 ERA81-004
Q14 IRFU9020
Q13 FMY1T148
D31 ERA81-004
Q32 IRFU9020
Q31 FMY1T148
D32 ERA81-004
Q34 IRFU9020
Q33 FMY1T148
D54 SB05-05CP-TB
D53 SB05-05CP-TB
D55 SB05-05CP-TB
D52 SB05-05CP-TB
D51 SB05-05CP-TB
Q52 IRFU9020
Q51 FMY1T148
T51
PS101

NOTE
*

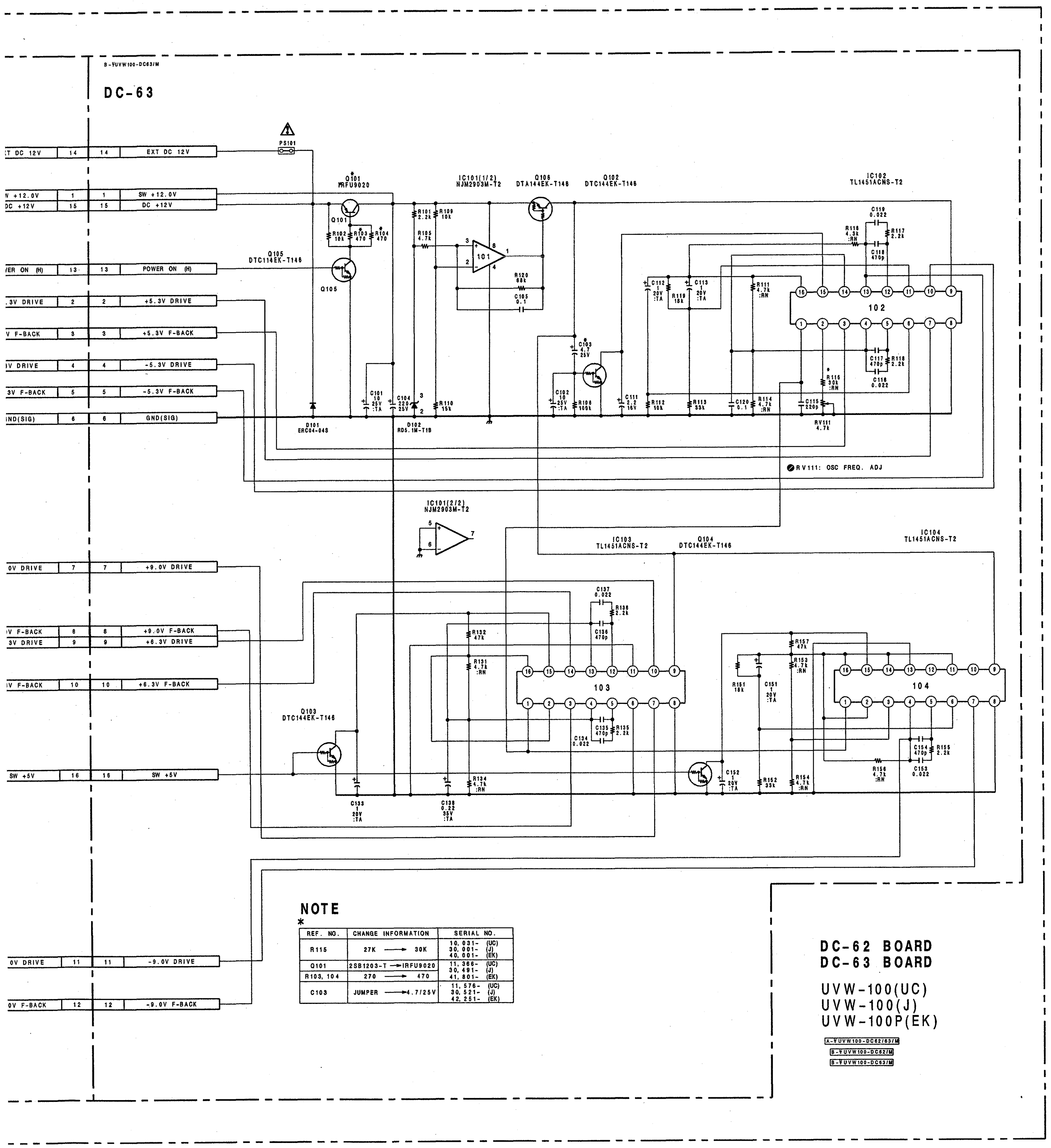
REF. NO.	CHANGE INFORMATION	SERIAL NO.
C14, 18, 34 C38, 63 R23, 24, 42 R43, R58	ADDED	11, 366- (UC) 30, 491- (J) 41, 801- (EK)
C60, 61	47/50V ⟶ 56/50V	11, 786 -11, 865(UC) 42, 701 - 43, 210(EK)
	56/50V ⟶ 39/50V	11, 866- (UC) 43, 211- (EK)
	47/50V ⟶ 39/50V	30, 521- (J)

NOTE
*

REF. NO.	CHANGE INFORMATION	SERIAL NO.
R115	27K ⟶ 30K	10, 031- (UC) 30, 001- (J) 40, 001- (EK)
Q101	2SB1203-T ⟶ IRFU9020	11, 366- (UC) 30, 491- (J) 41, 801- (EK)
R103, 104	270 ⟶ 470	
C103	JUMPER ⟶ 4.7/25V	11, 576- (UC) 30, 521- (J) 42, 251- (EK)

DC-62 BOARD
DC-63 BOARD
UVW-100(UC)
UVW-100(J)
UVW-100P(EK)

UVW-100 (J)
UVW-100 (UC)
UVW-100P (EK)


B-¥UVW100-DC63/M
DC-63
PS101
EXT DC 12V
14
SW +12.0V
1
DC +12V
15
POWER ON (H)
13
+5.3V DRIVE
2
+5.3V F-BACK
3
-5.3V DRIVE
4
-5.3V F-BACK
5
GND(SIG)
6
+9.0V DRIVE
7
+9.0V F-BACK
8
+6.3V DRIVE
9
+6.3V F-BACK
10
SW +5V
16
-9.0V DRIVE
11
-9.0V F-BACK
12
Q101 IRFU9020
Q105 DTC114EK-T146
IC101(1/2) NJM2903M-T2
IC101(2/2) NJM2903M-T2
Q106 DTA144EK-T146
Q102 DTC144EK-T146
IC102 TL1451ACNS-T2
Q103 DTC144EK-T146
IC103 TL1451ACNS-T2
Q104 DTC144EK-T146
IC104 TL1451ACNS-T2
R101 2.2k
R109 10k
R102 10k
R103 470
R104 470
R105 4.7k
R120 68k
C105 0.1
C101 10 25V :TA
C104 220 25V
D101 ERC04-04S
D102 RD5.1M-T1B
R110 15k
C103 4.7 25V
C102 10 25V :TA
R106 100k
C111 2.2 16V
C112 1 20V :TA
R119 18k
C113 1 20V :TA
R111 4.7k :RN
R112 10k
R113 33k
C120 0.1
R114 4.7k :RN
C115 220p
R115 30k :RN
RV111 4.7k
R116 4.3k :RN
C119 0.022
R117 2.2k
C118 470p
C117 470p
R118 2.2k
C116 0.022
102
RV111: OSC FREQ. ADJ
R132 47k
R131 4.7k :RN
R134 4.7k :RN
C133 1 20V :TA
C138 0.22 35V :TA
C137 0.022
R136 2.2k
C136 470p
C135 470p
R135 2.2k
C134 0.022
103
R157 47k
R153 4.7k :RN
R151 18k
C151 1 20V :TA
C152 1 20V :TA
R152 33k
R154 4.7k :RN
C154 470p
R155 2.2k
R156 4.7k :RN
C153 0.022
104

NOTE

*

REF. NO.	CHANGE INFORMATION	SERIAL NO.
R115	27K → 30K	10, 031- (UC) 30, 001- (J) 40, 001- (EK)
Q101	2SB1203-T → IRFU9020	11, 366- (UC) 30, 491- (J) 41, 801- (EK)
R103, 104	270 → 470	
C103	JUMPER → 4.7/25V	11, 576- (UC) 30, 521- (J) 42, 251- (EK)

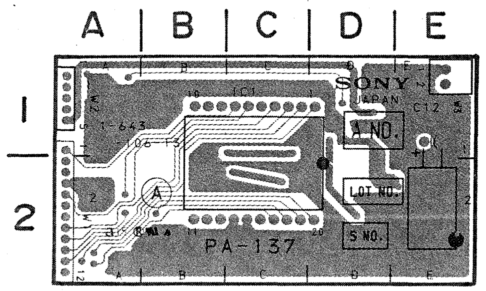
DC-62 BOARD
DC-63 BOARD

UVW-100(UC)
UVW-100(J)
UVW-100P(EK)

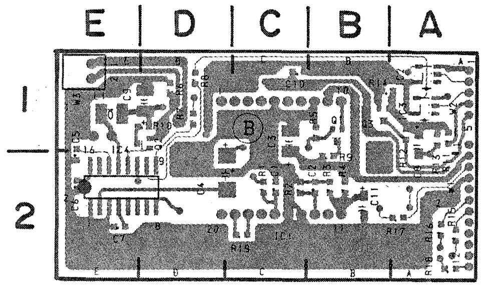
A-¥UVW100-DC62/63/M
B-¥UVW100-DC62/M
B-¥UVW100-DC63/M

MB-530/530(P) BOARD
PA-137(B)(G)(R)/137P(B)(R) BOARD

SERIAL No. 11866 and higher (UC)
30521 and higher (J)
43211 and higher (EK)

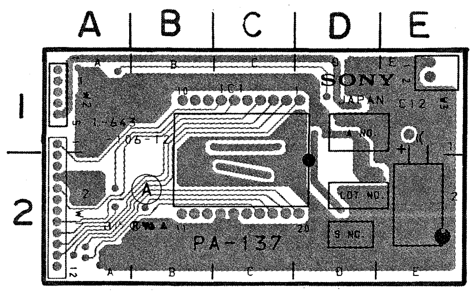

A
B
C
D
E
1
2
SONY
JAPAN
PA-137
1-643
C12
A NO.
LOT NO.
S NO.

PA-137(B)(G)(R)/137P(B)(R) -A SIDE-
1-643-106-13
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

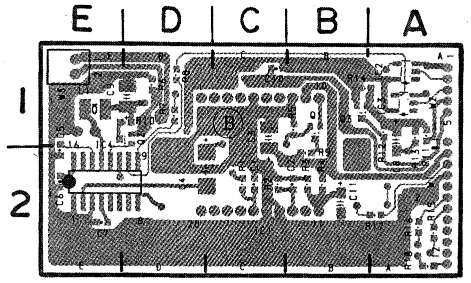

E
D
C
B
A
1
2
B
IC1

PA-137(B)(G)(R)/137P(B)(R) -B SIDE-
1-643-106-13
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

SERIAL No. 10001-11865 (UC)
30001-30520 (J)
40001-43210 (EK)

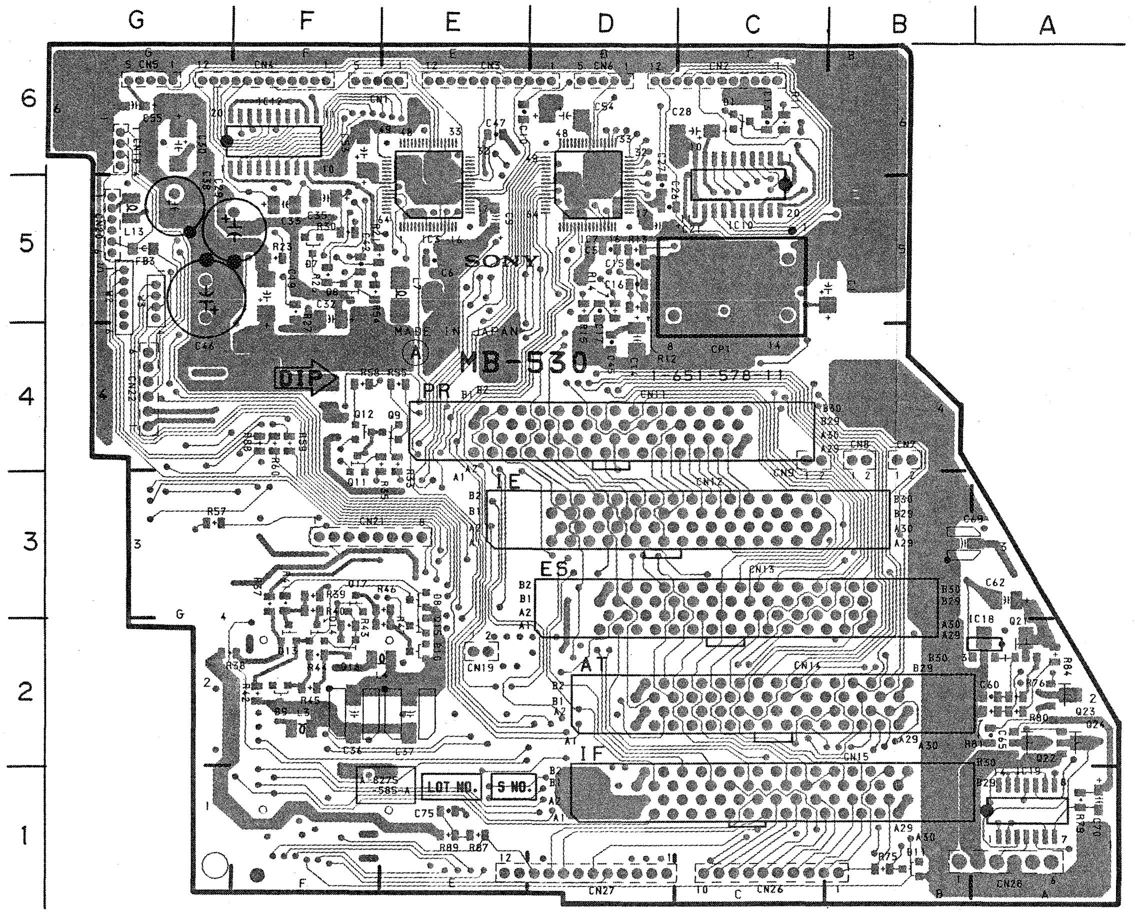

A
B
C
D
E
1
2
SONY
JAPAN
PA-137
1-643
LOT NO.
S NO.

PA-137(B)(G)(R)/137P(B)(R) -A SIDE-
1-643-106-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


E
D
C
B
A
1
2
B
IC1

PA-137(B)(G)(R)/137P(B)(R) -B SIDE-
1-643-106-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

SERIAL No. 10001-11235 (UC)
30001-30490 (J)
40001-41350 (EK)


G
F
E
D
C
B
A
6
5
4
3
2
1
SONY
JAPAN
MB-530
1-651-578-11
DIP
PR
IF
ES
AT
LOT NO.
S NO.
CN1
CN11
CN12
CN13
CN14
CN15
CN19
CN26
CN27
C10
C46
C28
C62
IC10
R57

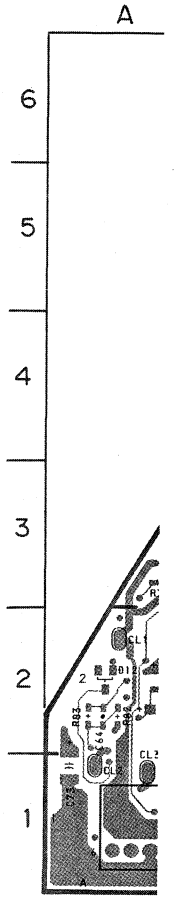
MB-530/530(P) -A SIDE-
1-651-578-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

MB-530/530(P)(1-651-578-11)

* ; B SIDE

*CN1	F-6	*CN21	E-3	D8	E-3	IC7	D-5	*L11	E-6	Q16	F-2	*RV7	B-3
*CN2	C-6	*CN22	G-4	D9	F-2	IC10	C-5	*L12	G-6	Q17	F-3		
*CN3	E-6	*CN24	F-2	D10	E-2	*IC11	C-5	L13	G-5	*Q18	F-4	*TP1	C-6
*CN4	F-6	*CN25	F-2	D11	B-1	IC12	F-6			*Q19	F-4	*TP2	B-5
*CN5	G-6	*CN26	C-1	*D12	A-2	*IC13	E-6	*Q1	C-4	*Q20	F-3	*TP3	G-6
*CN6	D-6	*CN27	D-1			*IC14	F-5	*Q4	G-6	Q21	A-2	*TP4	G-3
*CN7	B-4	*CN28	A-1	*E1	G-6	*IC15	G-3	*Q5	G-6	Q22	A-2	*TP5	G-4
*CN8	B-4					IC18	A-2	*Q6	F-6	Q23	A-2	*TP6	C-5
*CN9	B-4	CP1	C-4	*FB1	G-5	IC19	A-1	*Q7	F-5	Q24	A-2	*TP7	B-3
CN11	D-4			*FB2	G-5			Q8	F-5	*Q25	G-4	*TP8	G-3
CN12	C-3	D1	C-6	FB3	G-5	*L1	C-4	Q9	E-4				
CN13	C-3	*D2	B-6	*FB4	G-5	L3	F-2	*Q10	E-3	*RV1	C-6	W2	G-5
CN14	C-2	*D3	G-6			L4	E-2	Q11	F-3	*RV2	B-5	W3	G-5
CN15	B-2	*D4	F-6	*IC1	D-5	*L5	E-6	Q12	F-4	*RV3	F-6		
*CN18	G-6	*D5	F-5	*IC2	E-4	*L6	D-4	Q13	F-2	*RV4	F-5		
*CN19	E-3	*D6	G-5	IC3	E-5	L7	E-5	Q14	F-2	*RV5	G-5		
*CN20	G-5	D7	F-5	*IC6	D-5	*L10	D-6	Q15	E-2	*RV6	C-5		

* ; B SIDE

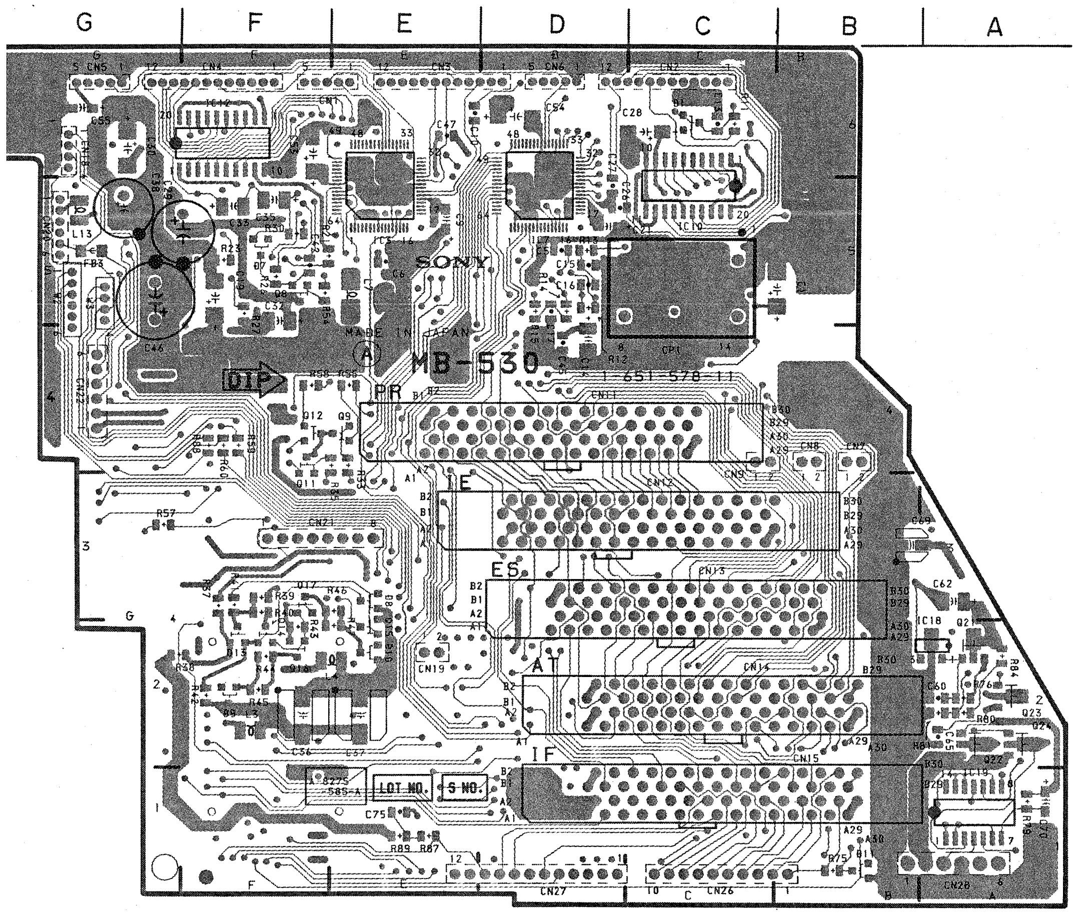


MB-530/53

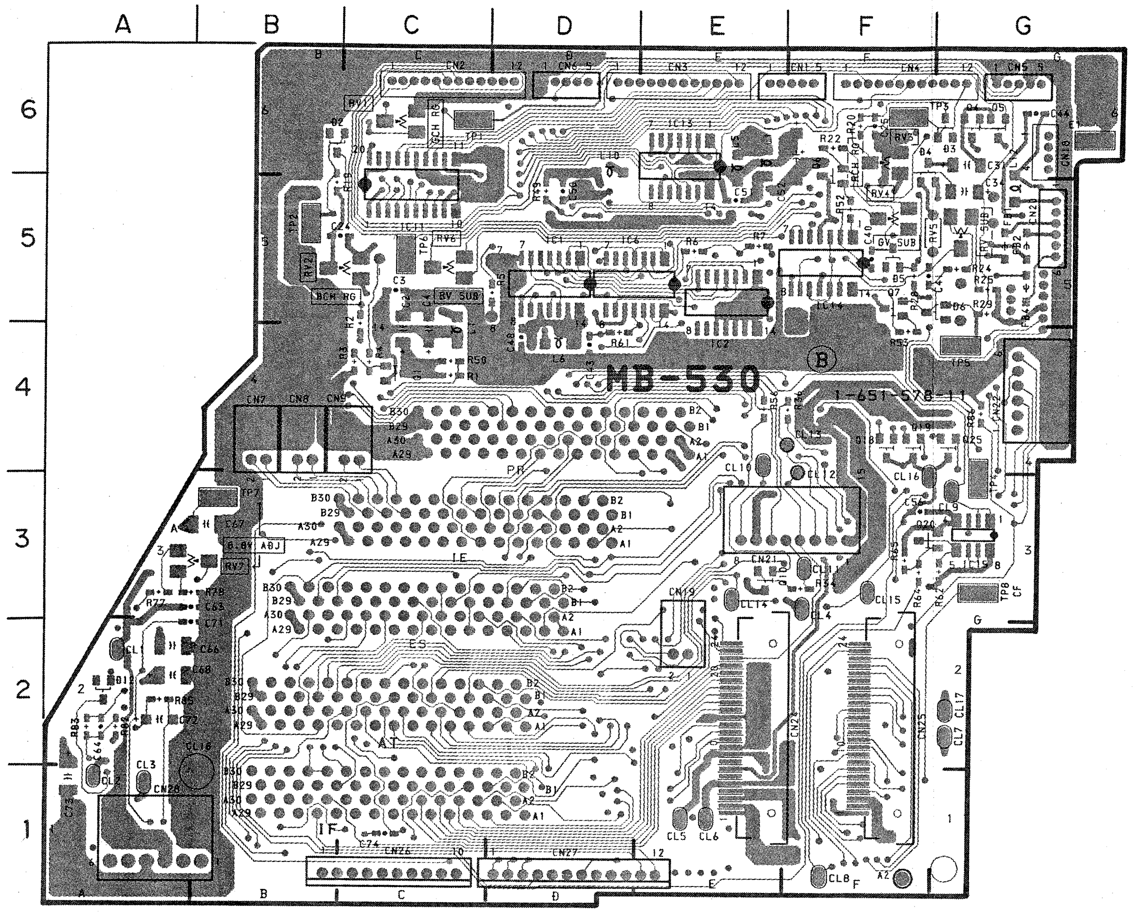
* ; B SIDE

*CN1	F
*CN2	C
*CN3	E
*CN4	F
*CN5	G
*CN6	D
*CN7	B
*CN8	B
*CN9	B
CN11	D
CN12	C
CN13	C
CN14	C
CN15	B
*CN18	G
*CN19	E
*CN20	G

RIAL No. 10001-11235 (UC)
30001-30490 (J)
40001-41350 (EK)



MB-530/530(P) -A SIDE-
1-651-578-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)



MB-530/530(P) -B SIDE-
1-651-578-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

3-530/530(P)(1-651-578-11)

; **B SIDE**

N1	F-6	*CN21	E-3	D8	E-3	IC7	D-5	*L11	E-6	Q16	F-2	*RV7	B-3
N2	C-6	*CN22	G-4	D9	F-2	IC10	C-5	*L12	G-6	Q17	F-3		
N3	E-6	*CN24	F-2	D10	E-2	*IC11	C-5	L13	G-5	*Q18	F-4	*TP1	C-6
N4	F-6	*CN25	F-2	D11	B-1	IC12	F-6			*Q19	F-4	*TP2	B-5
N5	G-6	*CN26	C-1	*D12	A-2	*IC13	E-6	*Q1	C-4	*Q20	F-3	*TP3	G-6
N6	D-6	*CN27	D-1			*IC14	F-5	*Q4	G-6	Q21	A-2	*TP4	G-3
N7	B-4	*CN28	A-1	*E1	G-6	*IC15	G-3	*Q5	G-6	Q22	A-2	*TP5	G-4
N8	B-4					IC18	A-2	*Q6	F-6	Q23	A-2	*TP6	C-5
N9	B-4	CP1	C-4	*FB1	G-5	IC19	A-1	*Q7	F-5	Q24	A-2	*TP7	B-3
N11	D-4			*FB2	G-5			Q8	F-5	*Q25	G-4	*TP8	G-3
N12	C-3	D1	C-6	FB3	G-5	*L1	C-4	Q9	E-4				
N13	C-3	*D2	B-6	*FB4	G-5	L3	F-2	*Q10	E-3	*RV1	C-6	W2	G-5
N14	C-2	*D3	G-6			L4	E-2	Q11	F-3	*RV2	B-5	W3	G-5
N15	B-2	*D4	F-6	*IC1	D-5	*L5	E-6	Q12	F-4	*RV3	F-6		
N18	G-6	*D5	F-5	*IC2	E-4	*L6	D-4	Q13	F-2	*RV4	F-5		
N19	E-3	*D6	G-5	IC3	E-5	L7	E-5	Q14	F-2	*RV5	G-5		
N20	G-5	D7	F-5	*IC6	D-5	*L10	D-6	Q15	E-2	*RV6	C-5		

* ; **B SIDE**

MB-530/530(P)(1-651-578-11)

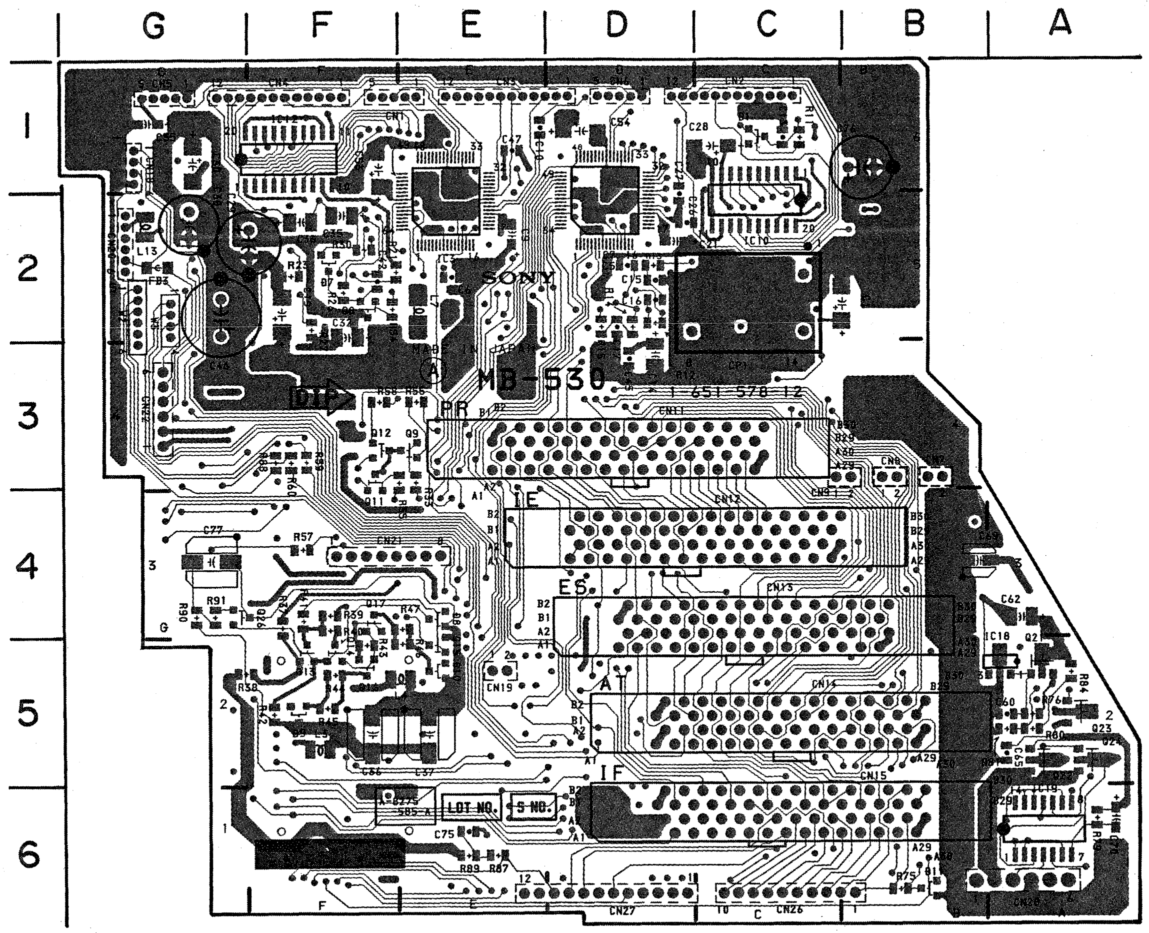
* ; **B SIDE**

*CN1	F-6	*CN21	E-3	D8	E-3	IC7	D-5	*L11	E-6	Q16	F-2	*RV7	B-3
*CN2	C-6	*CN22	G-4	D9	F-2	IC10	C-5	*L12	G-6	Q17	F-3		
*CN3	E-6	*CN24	F-2	D10	E-2	*IC11	C-5	L13	G-5	*Q18	F-4	*TP1	C-6
*CN4	F-6	*CN25	F-2	D11	B-1	IC12	F-6			*Q19	F-4	*TP2	B-5
*CN5	G-6	*CN26	C-1	*D12	A-2	*IC13	E-6	*Q1	C-4	*Q20	F-3	*TP3	G-6
*CN6	D-6	*CN27	D-1			*IC14	F-5	*Q4	G-6	Q21	A-2	*TP4	G-3
*CN7	B-4	*CN28	A-1	*E1	G-6	*IC15	G-3	*Q5	G-6	Q22	A-2	*TP5	G-4
*CN8	B-4					IC18	A-2	*Q6	F-6	Q23	A-2	*TP6	C-5
*CN9	B-4	CP1	C-4	*FB1	G-5	IC19	A-1	*Q7	F-5	Q24	A-2	*TP7	B-3
CN11	D-4			*FB2	G-5			Q8	F-5	*Q25	G-4	*TP8	G-3
CN12	C-3	D1	C-6	FB3	G-5	*L1	C-4	Q9	E-4				
CN13	C-3	*D2	B-6	*FB4	G-5	L3	F-2	*Q10	E-3	*RV1	C-6	W2	G-5
CN14	C-2	*D3	G-6			L4	E-2	Q11	F-3	*RV2	B-5	W3	G-5
CN15	B-2	*D4	F-6	*IC1	D-5	*L5	E-6	Q12	F-4	*RV3	F-6		
*CN18	G-6	*D5	F-5	*IC2	E-4	*L6	D-4	Q13	F-2	*RV4	F-5		
*CN19	E-3	*D6	G-5	IC3	E-5	L7	E-5	Q14	F-2	*RV5	G-5		
*CN20	G-5	D7	F-5	*IC6	D-5	*L10	D-6	Q15	E-2	*RV6	C-5		

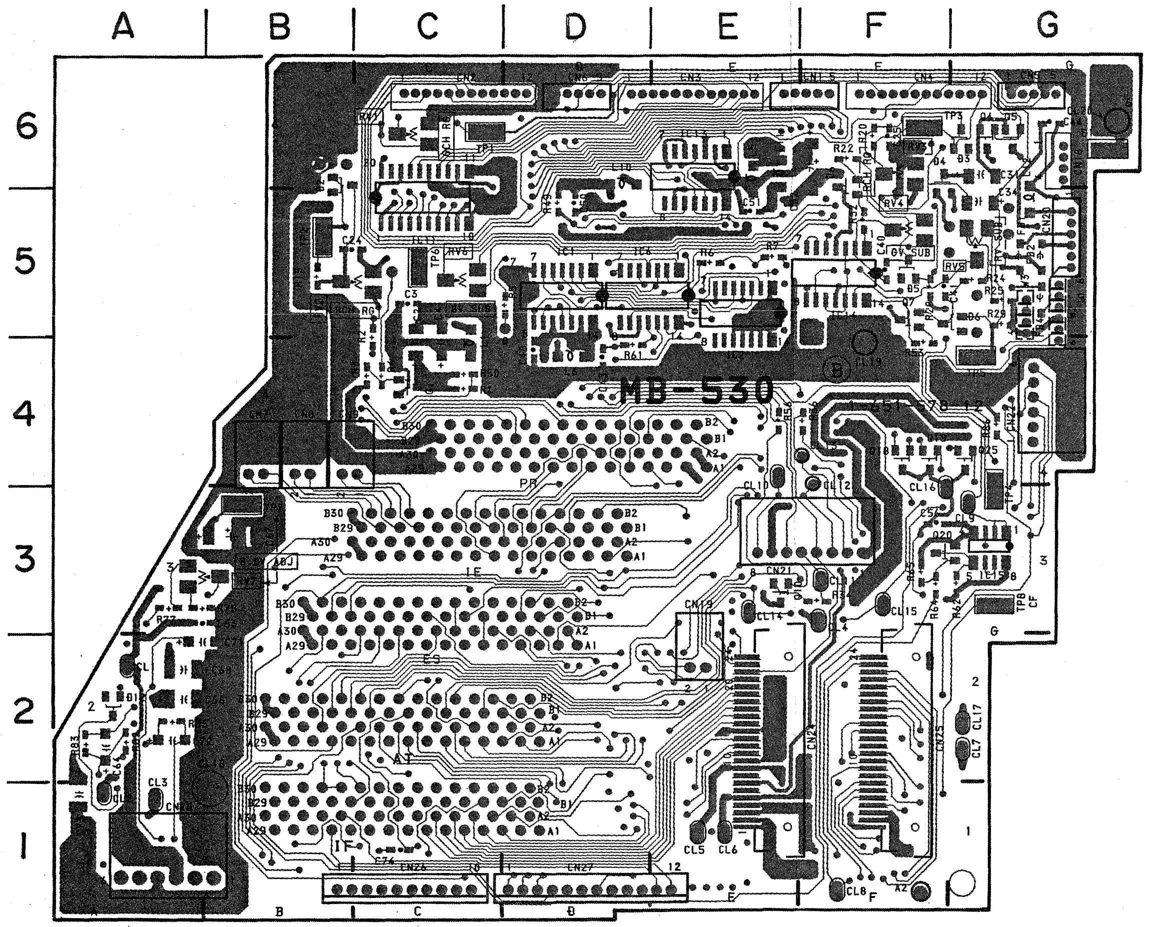
* ; **B SIDE**

MB-530/530(P) BOARD

SERIAL No. 11236 and higher (UC)
30491 and higher (J)
41351 and higher (EK)



MB-530/530(P) -A SIDE-
1-651-578-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)



MB-530/530(P) -B SIDE-
1-651-578-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

MB-530/530(P)(1-651-578-12)

*; B SIDE

*CN1	F-6	*CN21	E-3	D8	E-3	IC7	D-5	*L11	E-6	Q16	F-2	*RV7	B-3
*CN2	C-6	*CN22	G-4	D9	F-2	IC10	C-5	*L12	G-6	Q17	F-3		
*CN3	E-6	*CN24	F-2	D10	E-2	*IC11	C-5	L13	G-5	*Q18	F-4	*TP1	C-6
*CN4	F-6	*CN25	F-2	D11	B-1	IC12	F-6			*Q19	F-4	*TP2	B-5
*CN5	G-6	*CN26	C-1	*D12	A-2	*IC13	E-6	*Q1	C-4	*Q20	F-3	*TP3	G-6
*CN6	D-6	*CN27	D-1			*IC14	F-5	*Q4	G-6	Q21	A-2	*TP4	G-3
*CN7	B-4	*CN28	A-1	*E1	G-6	*IC15	G-3	*Q5	G-6	Q22	A-2	*TP5	G-4
*CN8	B-4					IC18	A-2	*Q6	F-6	Q23	A-2	*TP6	C-5
*CN9	B-4	CP1	C-4	*FB1	G-5	IC19	A-1	*Q7	F-5	Q24	A-2	*TP7	B-3
CN11	D-4			*FB2	G-5			Q8	F-5	*Q25	G-4	*TP8	G-3
CN12	C-3	D1	C-6	FB3	G-5	*L1	C-4	Q9	E-4				
CN13	C-3	*D2	B-6	*FB4	G-5	L3	F-2	*Q10	E-3	*RV1	C-6	W2	G-5
CN14	C-2	*D3	G-6			L4	E-2	Q11	F-3	*RV2	B-5	W3	G-5
CN15	B-2	*D4	F-6	*IC1	D-5	*L5	E-6	Q12	F-4	*RV3	F-6		
*CN18	G-6	*D5	F-5	*IC2	E-4	*L6	D-4	Q13	F-2	*RV4	F-5		
*CN19	E-3	*D6	G-5	IC3	E-5	L7	E-5	Q14	F-2	*RV5	G-5		
*CN20	G-5	D7	F-5	*IC6	D-5	*L10	D-6	Q15	E-2	*RV6	C-5		

*; B SIDE

MB-530/530(P)(1-651-578-12)

*; B SIDE

*CN1	F-6	*CN21	E-3	D8	E-3	IC7	D-5	*L11	E-6	Q16	F-2	*RV7	B-3
*CN2	C-6	*CN22	G-4	D9	F-2	IC10	C-5	*L12	G-6	Q17	F-3		
*CN3	E-6	*CN24	F-2	D10	E-2	*IC11	C-5	L13	G-5	*Q18	F-4	*TP1	C-6
*CN4	F-6	*CN25	F-2	D11	B-1	IC12	F-6			*Q19	F-4	*TP2	B-5
*CN5	G-6	*CN26	C-1	*D12	A-2	*IC13	E-6	*Q1	C-4	*Q20	F-3	*TP3	G-6
*CN6	D-6	*CN27	D-1			*IC14	F-5	*Q4	G-6	Q21	A-2	*TP4	G-3
*CN7	B-4	*CN28	A-1	*E1	G-6	*IC15	G-3	*Q5	G-6	Q22	A-2	*TP5	G-4
*CN8	B-4					IC18	A-2	*Q6	F-6	Q23	A-2	*TP6	C-5
*CN9	B-4	CP1	C-4	*FB1	G-5	IC19	A-1	*Q7	F-5	Q24	A-2	*TP7	B-3
CN11	D-4			*FB2	G-5			Q8	F-5	*Q25	G-4	*TP8	G-3
CN12	C-3	D1	C-6	FB3	G-5	*L1	C-4	Q9	E-4				
CN13	C-3	*D2	B-6	*FB4	G-5	L3	F-2	*Q10	E-3	*RV1	C-6	W2	G-5
CN14	C-2	*D3	G-6			L4	E-2	Q11	F-3	*RV2	B-5	W3	G-5
CN15	B-2	*D4	F-6	*IC1	D-5	*L5	E-6	Q12	F-4	*RV3	F-6		
*CN18	G-6	*D5	F-5	*IC2	E-4	*L6	D-4	Q13	F-2	*RV4	F-5		
*CN19	E-3	*D6	G-5	IC3	E-5	L7	E-5	Q14	F-2	*RV5	G-5		
*CN20	G-5	D7	F-5	*IC6	D-5	*L10	D-6	Q15	E-2	*RV6	C-5		

*; B SIDE

CAMERA FRAME(1/2)

B-ⱿUVW100-MB530/M

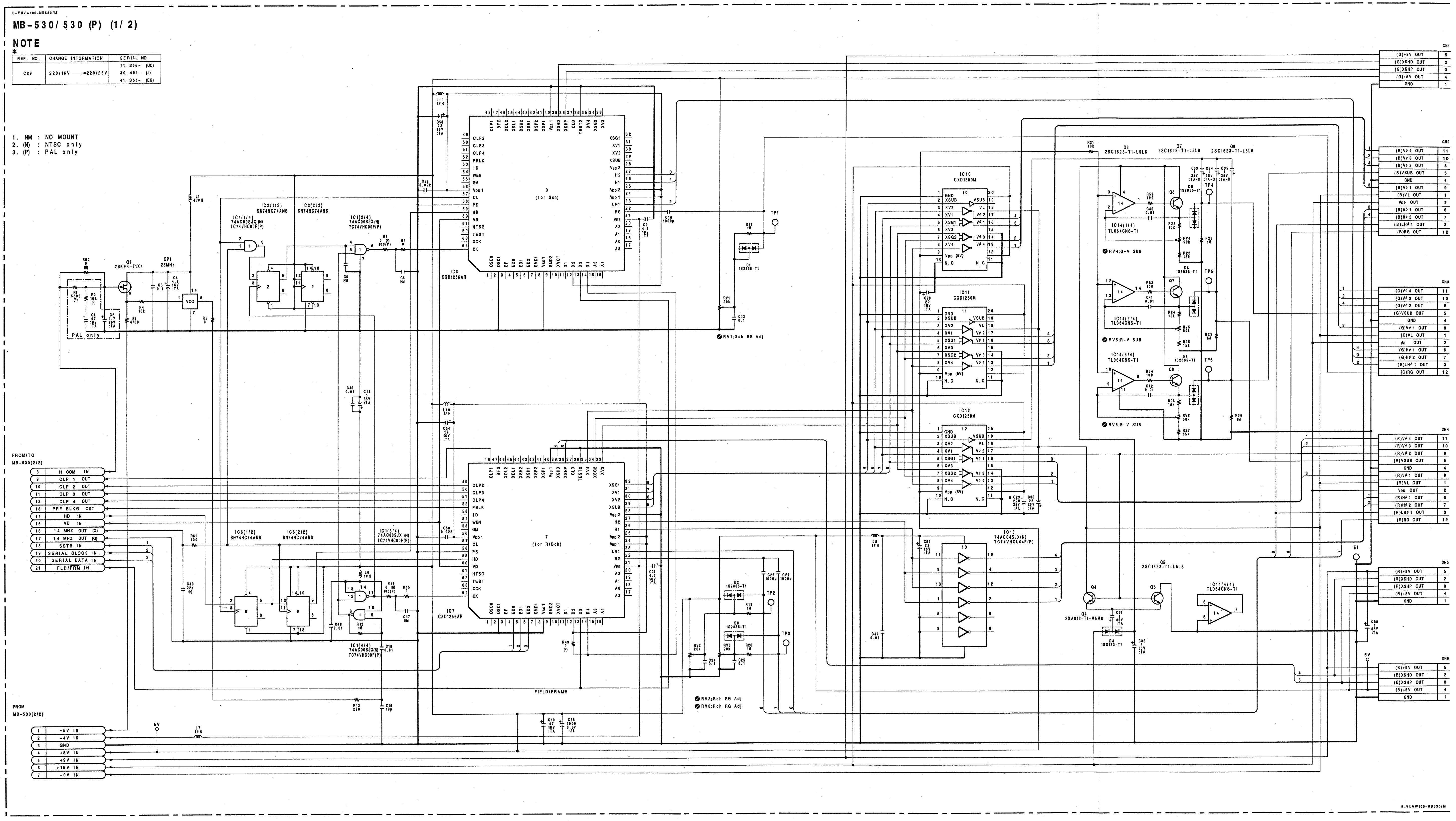
MB-530/530 (P) (1/2)

NOTE

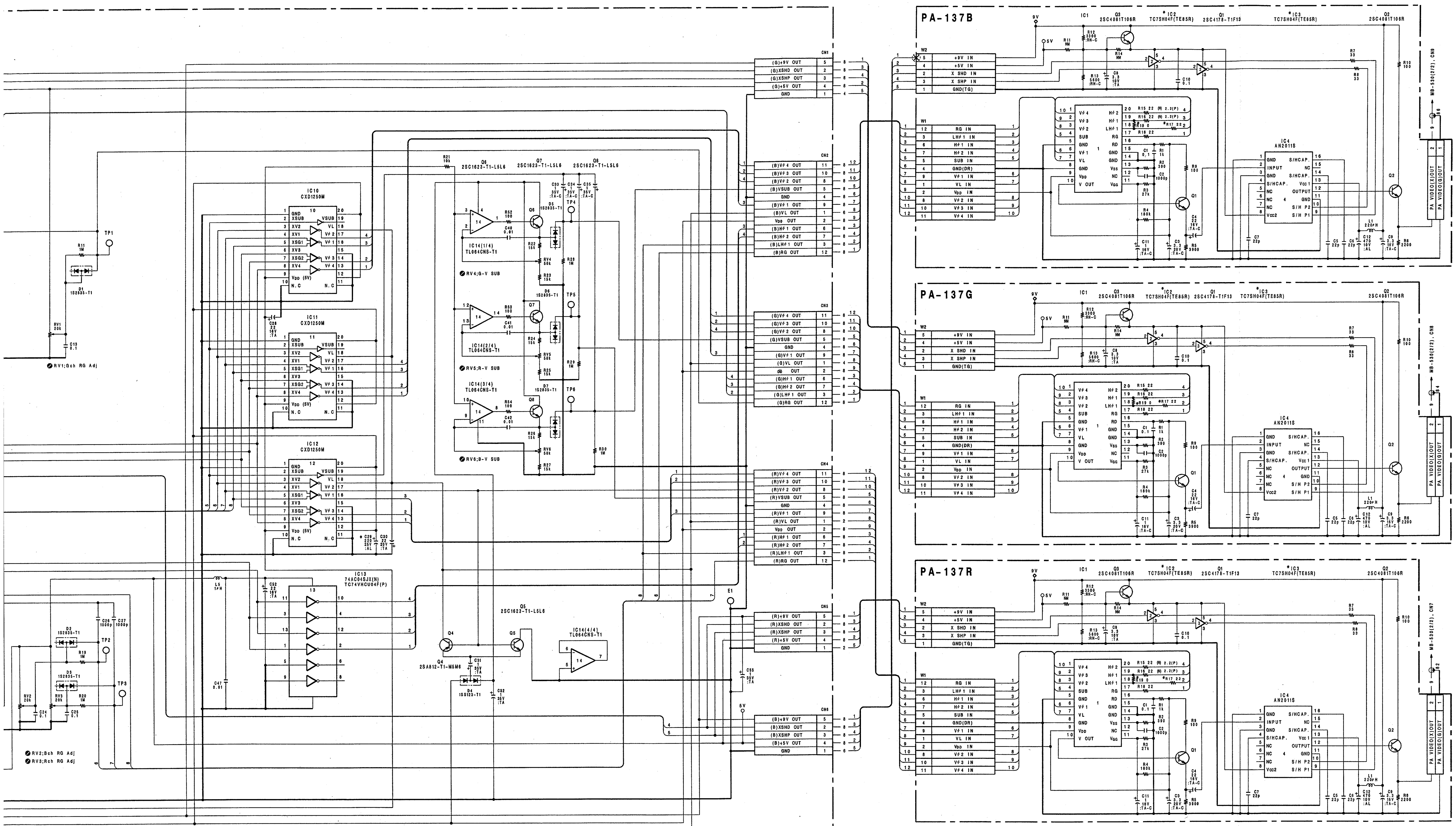
*

REF. NO.	CHANGE INFORMATION	SERIAL NO.
C29	220/16V ⟶ 220/25V	11, 236- (UC) 30, 491- (J) 41, 351- (EK)

1. NM : NO MOUNT
2. (N) : NTSC only
3. (P) : PAL only



FROM/TO
MB-530(2/2)
8 H COM IN
9 CLP 1 OUT
10 CLP 2 OUT
11 CLP 3 OUT
12 CLP 4 OUT
13 PRE BLKG OUT
14 HD IN
15 VD IN
16 14 MHZ OUT (X)
17 14 MHZ OUT (G)
18 SSTB IN
19 SERIAL CLOCK IN
20 SERIAL DATA IN
21 FLD/FRM IN
FROM
MB-530(2/2)
1 -5V IN
2 -4V IN
3 GND
4 +5V IN
5 +9V IN
6 +15V IN
7 -9V IN
Q1 2SK94-T1X4
CP1 28MHz
VCO
PAL only
IC1(1/4) 74AC00SJX(N) TC74VHC00F(P)
IC1(2/4) 74AC00SJX(N) TC74VHC00F(P)
IC1(3/4) 74AC00SJX(N) TC74VHC00F(P)
IC1(4/4) 74AC00SJX(N) TC74VHC00F(P)
IC2(1/2) SN74HC74ANS
IC2(2/2) SN74HC74ANS
IC6(1/2) SN74HC74ANS
IC6(2/2) SN74HC74ANS
IC3 CXD1256AR
3 (for Gch)
IC7 CXD1256AR
7 (for R/Bch)
FIELD/FRAME
TP1
TP2
TP3
D1 1SS355-T1
D2 1SS355-T1
D3 1SS355-T1
RV1;Gch RG Adj
RV2;Bch RG Adj
RV3;Rch RG Adj
IC10 CXD1250M
IC11 CXD1250M
IC12 CXD1250M
IC13 74AC04SJX(N) TC74VHCU04F(P)
Q4 2SA812-T1-M5M6
Q5 2SC1623-T1-L5L6
Q6 2SC1623-T1-L5L6
Q7 2SC1623-T1-L5L6
Q8 2SC1623-T1-L5L6
IC14(1/4) TL064CNS-T1
IC14(2/4) TL064CNS-T1
IC14(3/4) TL064CNS-T1
IC14(4/4) TL064CNS-T1
RV4;G-V SUB
RV5;R-V SUB
RV6;B-V SUB
TP4
TP5
TP6
E1
5V
CN1
(G)+9V OUT 5
(G)XSHD OUT 2
(G)XSHP OUT 3
(G)+5V OUT 4
GND 1
CN2
(B)Vϕ4 OUT 11
(B)Vϕ3 OUT 10
(B)Vϕ2 OUT 8
(B)VSUB OUT 5
GND 4
(B)Vϕ1 OUT 9
(B)VL OUT 1
VDD OUT 2
(B)Hϕ1 OUT 6
(B)Hϕ2 OUT 7
(B)LHϕ1 OUT 3
(B)RG OUT 12
CN3
(G)Vϕ4 OUT 11
(G)Vϕ3 OUT 10
(G)Vϕ2 OUT 8
(G)VSUB OUT 5
GND 4
(G)Vϕ1 OUT 9
(G)VL OUT 1
ϕD OUT 2
(G)Hϕ1 OUT 6
(G)Hϕ2 OUT 7
(G)LHϕ1 OUT 3
(G)RG OUT 12
CN4
(R)Vϕ4 OUT 11
(R)Vϕ3 OUT 10
(R)Vϕ2 OUT 8
(R)VSUB OUT 5
GND 4
(R)Vϕ1 OUT 9
(R)VL OUT 1
VDD OUT 2
(R)Hϕ1 OUT 6
(R)Hϕ2 OUT 7
(R)LHϕ1 OUT 3
(R)RG OUT 12
CN5
(R)+9V OUT 5
(R)XSHD OUT 2
(R)XSHP OUT 3
(R)+5V OUT 4
GND 1
CN6
(B)+9V OUT 5
(B)XSHD OUT 2
(B)XSHP OUT 3
(B)+5V OUT 4
GND 1
B-ⱿUVW100-MB530/M


PA-137B
PA-137G
PA-137R
IC10 CXD1250M
IC11 CXD1250M
IC12 CXD1250M
IC13 74AC04SJX(N) TC74VHCU04F(P)
IC14(1/4) TL064CNS-T1
IC14(2/4) TL064CNS-T1
IC14(3/4) TL064CNS-T1
IC14(4/4) TL064CNS-T1
Q6 2SC1623-T1-L5L6
Q7 2SC1623-T1-L5L6
Q8 2SC1623-T1-L5L6
Q5 2SC1623-T1-L5L6
Q4 2SA812-T1-M5M6
IC1
Q3 2SC4081T106R
*IC2 TC7SH04F(TE85R)
Q1 2SC4178-T1F13
*IC3 TC7SH04F(TE85R)
Q2 2SC4081T106R
IC4 AN2011S
CN1
CN2
CN3
CN4
CN5
CN6
W1
W2
TP1
TP2
TP3
TP4
TP5
TP6
E1
RV1;Bch RG Adj
RV2;Bch RG Adj
RV3;Rch RG Adj
RV4;G-V SUB
RV5;R-V SUB
RV6;B-V SUB
MB-530(2/2), CN8
MB-530(2/2), CN7
PA VIDEO(X)OUT
PA VIDEO(G)OUT
B-¥UVW100-MB530/M

NOTE
*

REF. NO.	CHANGE INFORMATION	SERIAL NO.
IC2, 3	TC7S04F -TE85L → TC7SH04F (TE85R)	11, 706- (UC) 30, 521- (J) 42, 601- (EK)
R19	ADDED	11, 866- (UC) 30, 521- (J) 43, 281- (EK)
R17	DELETED	

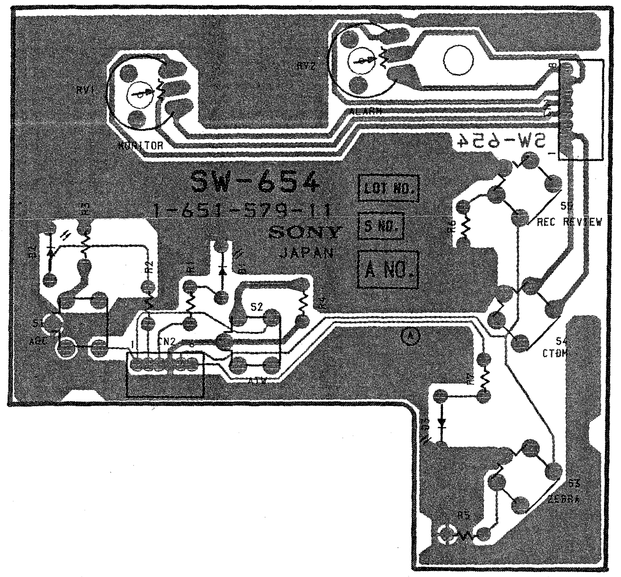
CAMERA FRAME (1/ 2)
MB-530/ 530 (P) BOARD (1/ 2)
PA-137B/ 137G/ 137R BOARD

UVW-100(UC)
UVW-100(J)
UVW-100P(EK)

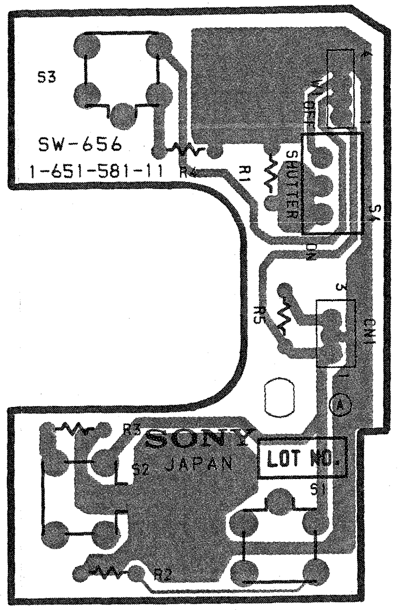
A-¥UVW100-FRAME/M#1
B-¥ UVW100-PA137G/M
B-¥ UVW100-PA137R/M
B-¥ UVW100-PA137B/M
B-¥ UVW100-MB530/M

CN-992 BOARD
LED-214 BOARD
SW-654 BOARD
SW-655 BOARD
SW-656 BOARD

SERIAL No. 10001-11365 (UC)
30001-30490 (J)
40001-41800 (EK)

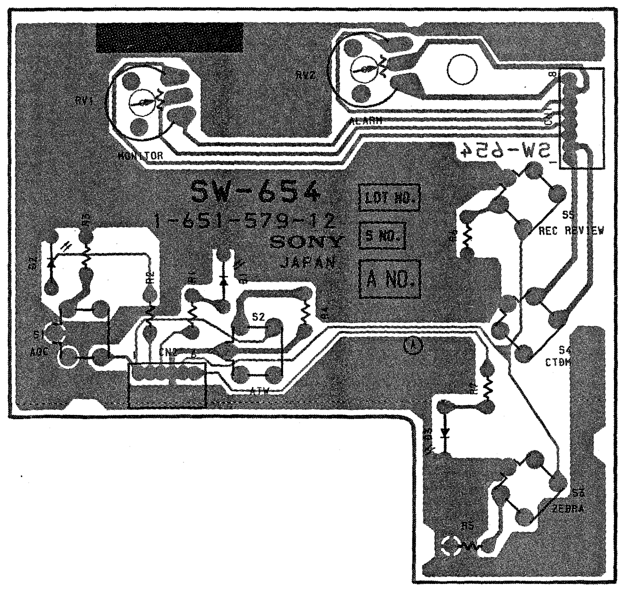

RV1
RV2
MONITOR
ALARM
SW-654
SW-654
1-651-579-11
SONY
JAPAN
LOT NO.
S NO.
A NO.
S6
REC REVIEW
R2
S1
ABC
CN2
S2
ATW
S4
CTOM
S3
ZEBRA
R5

SW-654 -A SIDE-
1-651-579-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

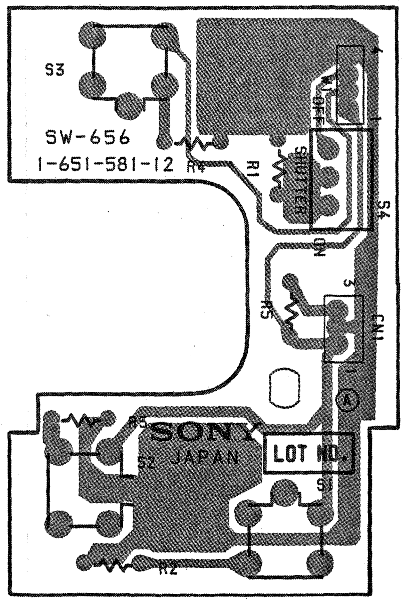

S3
SW-656
1-651-581-11
R4
R1
OFF
SHUTTER
ON
S4
R5
CN1
SONY
JAPAN
LOT NO.
R3
S2
S1
R2

SW-656 -A SIDE-
1-651-581-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

SERIAL No. 11366 and higher (UC)
30491 and higher (J)
41801 and higher (EK)

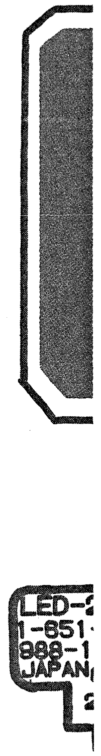

RV1
RV2
MONITOR
ALARM
SW-654
SW-654
1-651-579-12
SONY
JAPAN
LOT NO.
S NO.
A NO.
S6
REC REVIEW
S1
ABC
S2
ATW
S4
CTOM
S3
ZEBRA
R5

SW-654 -A SIDE-
1-651-579-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

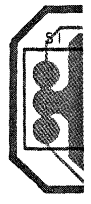

S3
SW-656
1-651-581-12
R4
R1
OFF
SHUTTER
ON
S4
R5
CN1
SONY
JAPAN
LOT NO.
R3
S2
S1
R2

SW-656 -A SIDE-
1-651-581-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

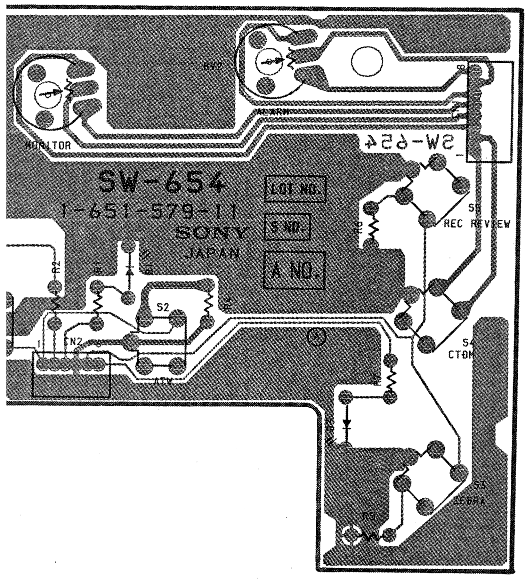
SERI


LED-2
1-651-
888-1
JAPAN

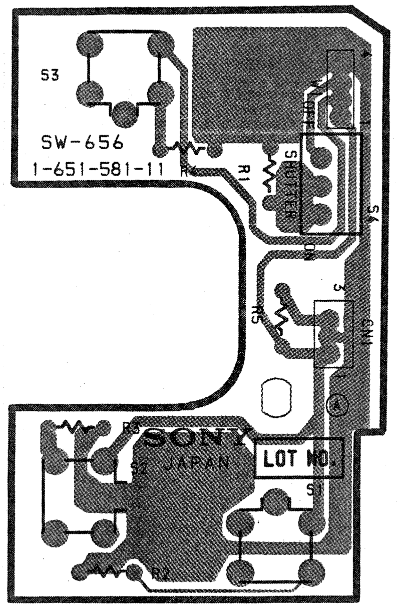
LED-
1-651-9
UVW-100
UVW-100
UVW-100



L No. 10001-11365 (UC)
30001-30490 (J)
40001-41800 (EK)

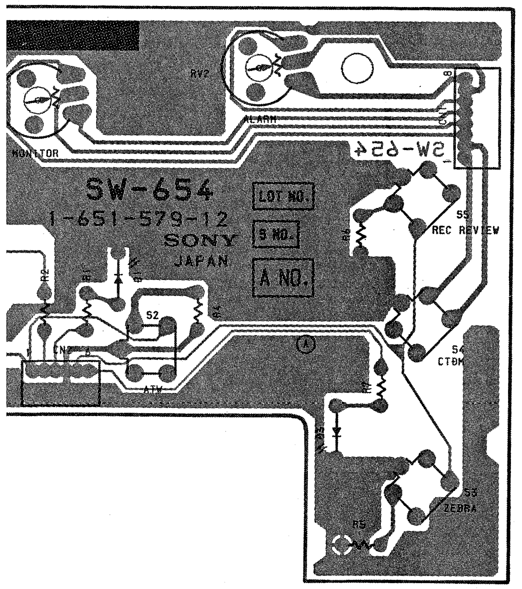

SW-654
1-651-579-11
SONY
JAPAN
LOT NO.
S NO.
A NO.
MONITOR
ALARM
RV2
REC REVIEW
CTOM
ZEBRA
S2
CN2
ATW
Ⓐ

SW-654 -A SIDE-
1-651-579-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

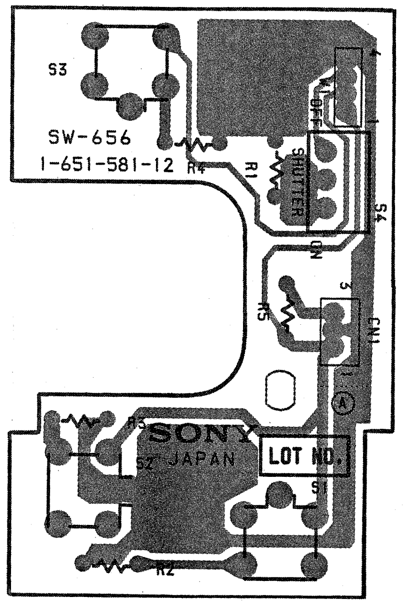

S3
SW-656
1-651-581-11
SHUTTER
OFF
ON
R1
R4
R5
S4
CN1
SONY
JAPAN
LOT NO.
S2
R3
R2
Ⓐ

SW-656 -A SIDE-
1-651-581-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

L No. 11366 and higher (UC)
30491 and higher (J)
41801 and higher (EK)

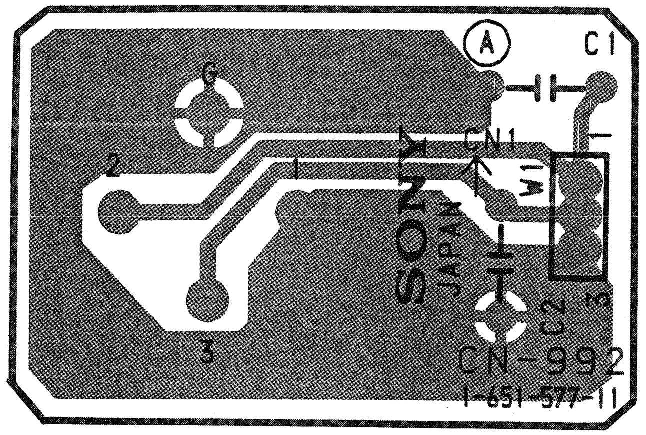

SW-654
1-651-579-12
SONY
JAPAN
LOT NO.
S NO.
A NO.
MONITOR
ALARM
RV2
REC REVIEW
CTOM
ZEBRA
S2
ATW
Ⓐ

SW-654 -A SIDE-
1-651-579-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


S3
SW-656
1-651-581-12
SHUTTER
OFF
ON
R1
R4
R5
S4
CN1
SONY
JAPAN
LOT NO.
S2
R3
R2
Ⓐ

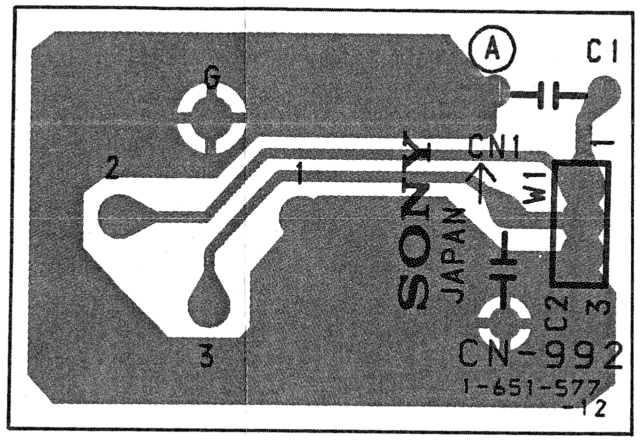
SW-656 -A SIDE-
1-651-581-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

SERIAL No. 10001-11365 (UC)
30001-30490 (J)
40001-41800 (EK)

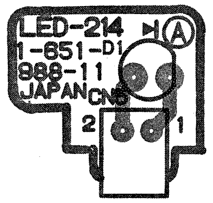

Ⓐ
C1
G
CN1
W1
2
1
3
C2
SONY
JAPAN
CN-992
1-651-577-11

CN-992 -A SIDE-
1-651-577-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

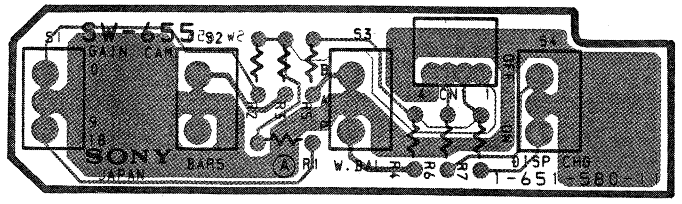
SERIAL No. 11366 and higher (UC)
30491 and higher (J)
41801 and higher (EK)


Ⓐ
C1
G
CN1
W1
2
1
3
C2
SONY
JAPAN
CN-992
1-651-577
-12

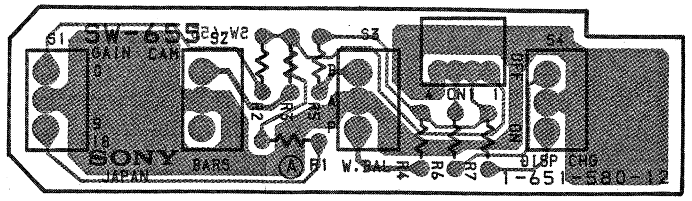
CN-992 -A SIDE-
1-651-577-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


LED-214
1-651-
988-11
JAPAN
D1
CN5
Ⓐ
2
1

LED-214 -A SIDE-
1-651-988-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


S1
SW-655
S2
S3
S4
GAIN CAM
0
9
18
SONY
JAPAN
BARS
W.BAL
DISP CHG
CN1
R1
R2
R3
R4
R5
R6
R7
Ⓐ
1-651-580-11

SW-655 -A SIDE-
1-651-580-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


S1
SW-655
S2
S3
S4
GAIN CAM
0
9
18
SONY
JAPAN
BARS
W.BAL
DISP CHG
OFF
ON
CN1
R1
R2
R4
R5
R6
R7
Ⓐ
1-651-580-12

SW-655 -A SIDE-
1-651-580-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

UVW-100 (J)
UVW-100 (UC)
UVW-100P (EK)

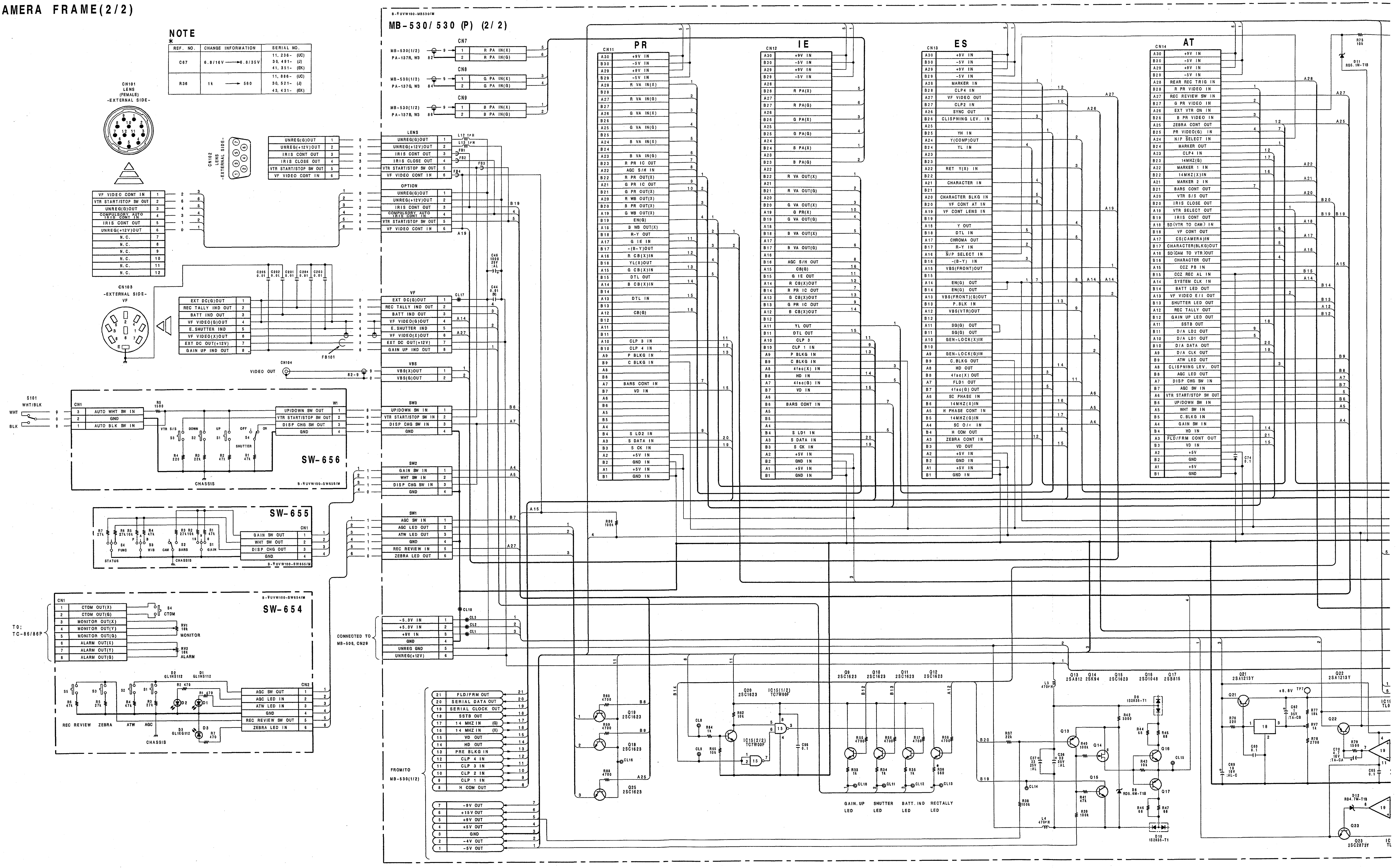
CAMERA FRAME(2/2)

CAMERA FRAME(2/2)

NOTE

*

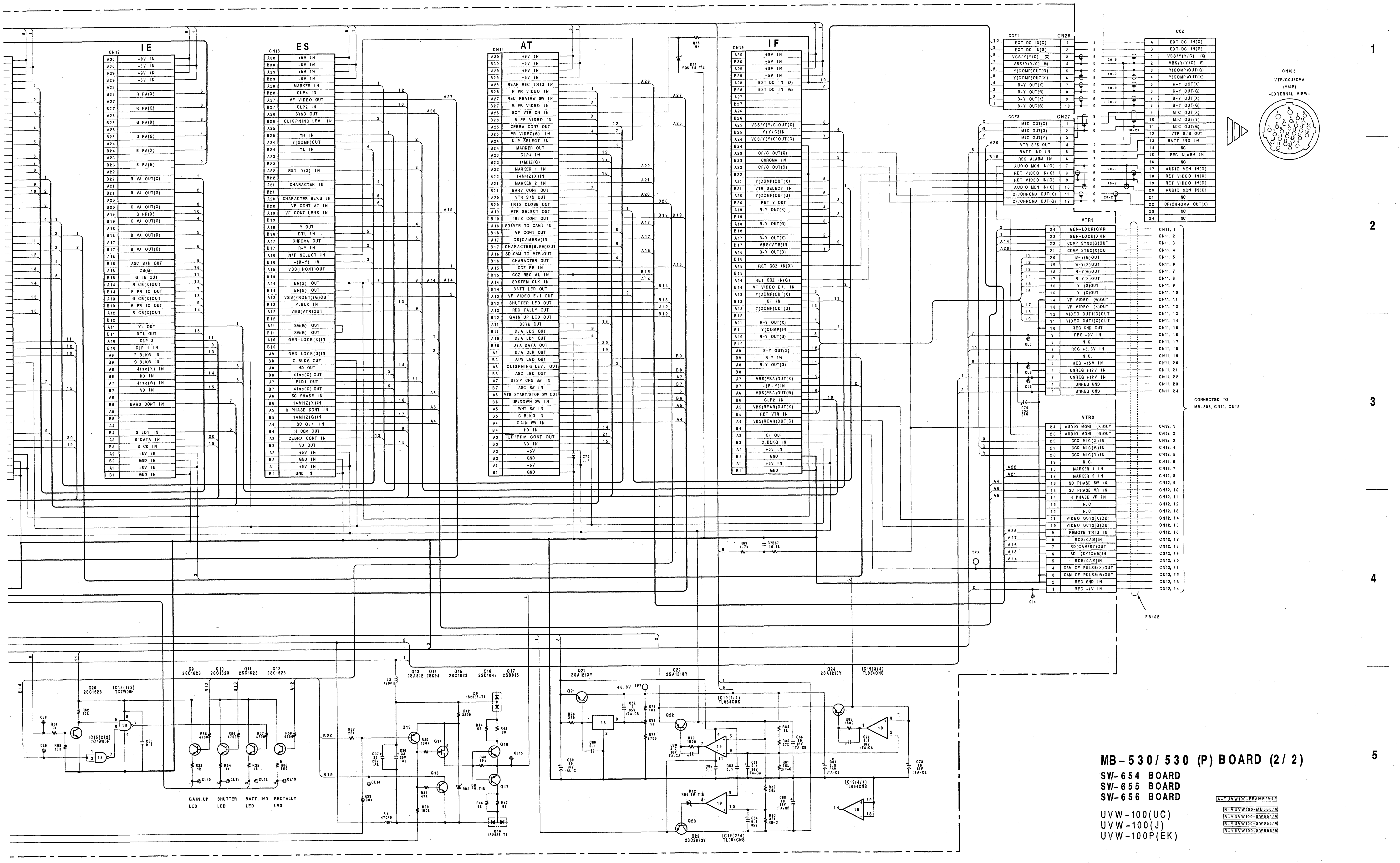
REF. NO.	CHANGE INFORMATION	SERIAL NO.
C67	6.8/16V ⟶ 6.8/35V	11, 236- (UC) 30, 491- (J) 41, 351- (EK)
R36	1k ⟶ 560	11, 886- (UC) 30, 521- (J) 43, 431- (EK)


MB-530/530 (P) (2/2)
CN101 LENS (FEMALE) -EXTERNAL SIDE-
CN102 LENS -EXTERNAL SIDE-
CN103 -EXTERNAL SIDE- VF
CN104 VIDEO OUT
VF VIDEO CONT IN
VTR START/STOP SW OUT
UNREG(G)OUT
COMPULSORY AUTO IRIS CONT IN
IRIS CONT OUT
UNREG(+12V)OUT
N.C.
IRIS CLOSE OUT
VF VIDEO CONT IN
EXT DC(G)OUT
REC TALLY IND OUT
BATT IND OUT
VF VIDEO(G)OUT
E.SHUTTER IND
VF VIDEO(X)OUT
EXT DC OUT(+12V)
GAIN UP IND OUT
LENS
OPTION
VF
VBS
VBS(X)OUT
VBS(G)OUT
SW3
SW2
SW1
S101 WHT/BLK
WHT
BLK
AUTO WHT SW IN
GND
AUTO BLK SW IN
UP/DOWN SW OUT
VTR START/STOP SW OUT
DISP CHG SW OUT
VTR S/S
DOWN
UP
OFF
ON
SHUTTER
CHASSIS
SW-656
SW-655
GAIN SW OUT
WHT SW OUT
DISP CHG SW OUT
STATUS
FUNC
MIB
CAM
BARS
GAIN
GAIN SW IN
WHT SW IN
DISP CHG SW IN
AGC SW IN
AGC LED OUT
ATW LED OUT
REC REVIEW IN
ZEBRA LED OUT
SW-654
TO: TC-86/86P
CTDM OUT(X)
CTDM OUT(G)
MONITOR OUT(X)
MONITOR OUT(Y)
MONITOR OUT(G)
ALARM OUT(X)
ALARM OUT(Y)
ALARM OUT(G)
CTDM
MONITOR
ALARM
AGC SW OUT
AGC LED IN
ATW LED IN
REC REVIEW SW OUT
ZEBRA LED IN
REC REVIEW
ZEBRA
ATW
AGC
CONNECTED TO MB-509, CN29
-5.3V IN
+5.3V IN
+9V IN
UNREG GND
UNREG(+12V)
FROM/TO MB-530(1/2)
FLD/FRM OUT
SERIAL DATA OUT
SERIAL CLOCK OUT
SSTB OUT
14 MHZ IN (G)
14 MHZ IN (X)
VD OUT
HD OUT
PRE BLKG IN
CLP 4 IN
CLP 3 IN
CLP 2 IN
CLP 1 IN
H COM OUT
-9V OUT
+15V OUT
+9V OUT
+5V OUT
-4V OUT
-5V OUT
MB-530(1/2) PA-137R, W3
MB-530(1/2) PA-137G, W3
MB-530(1/2) PA-137B, W3
CN7
CN8
CN9
R PA IN(X)
R PA IN(G)
G PA IN(X)
G PA IN(G)
B PA IN(X)
B PA IN(G)
PR
IE
ES
AT
CN11
CN12
CN13
CN14
GAIN UP LED
SHUTTER LED
BATT. IND LED
RECTALLY LED

UVW-100 (J)
UVW-100 (UC)
UVW-100P (EK)

11-45

A | B | C | D | E | F | G | H


IE
CN12
ES
CN13
AT
CN14
IF
CN15
CCZ1
CN26
CCZ2
CN27
CCZ
CN105
VTR/CCU/CMA
(MALE)
-EXTERNAL VIEW-
VTR1
VTR2
CONNECTED TO
MB-506, CN11, CN12
FB102
TP8
IC15(1/2) TC7W00F
IC15(2/2) TC7W00F
IC19(1/4) TL064CNS
IC19(2/4) TL064CNS
IC19(3/4) TL064CNS
IC19(4/4) TL064CNS
GAIN.UP LED
SHUTTER LED
BATT. IND LED
RECTALLY LED
1
2
3
4
5

MB-530/530 (P) BOARD (2/2)

SW-654 BOARD
SW-655 BOARD
SW-656 BOARD

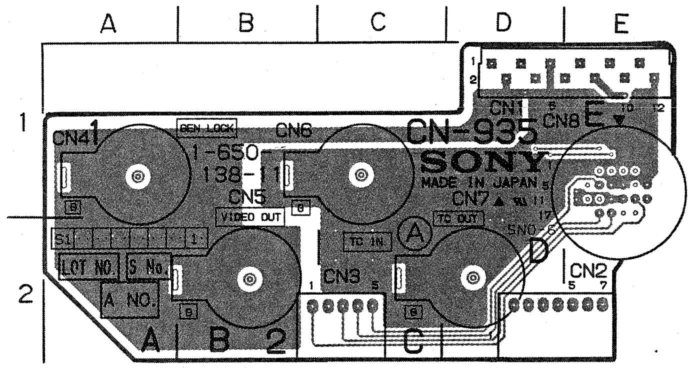
UVW-100(UC)
UVW-100(J)
UVW-100P(EK)

A-¥UVW100-FRAME/M#2

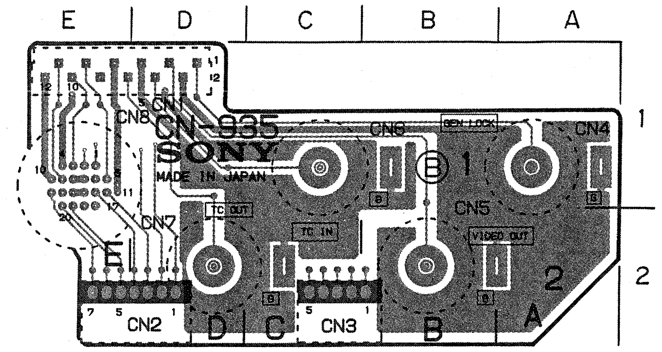
B-¥UVW100-MB530/M
B-¥UVW100-SW654/M
B-¥UVW100-SW655/M
B-¥UVW100-SW656/M

CN-935 BOARD
CN-936 BOARD
KY-285 BOARD
FE-18 BOARD
DR-254 BOARD
SR-55 BOARD
MB-506 BOARD

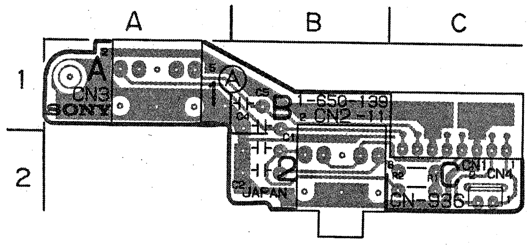
SERIAL No.	10001-11365	(UC)
	30001-30490	(J)
	40001-41800	(EK)


A
B
C
D
E
1
2
CN-935
SONY
1-650-138-11
CN4
CN6
CN1
CN8
CN5
CN7
CN3
CN2
S1
LOT NO.
S No.
A NO.
SEN LOCK
VIDEO OUT
TC OUT
TC IN

CN-935 -A SIDE-
1-650-138-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

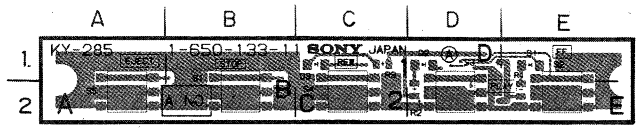

E
D
C
B
A
1
2
CN-935
SONY
MADE IN JAPAN
CN8
CN7
CN6
CN5
CN4
CN2
CN3
SEN LOCK
VIDEO OUT
TC OUT
TC IN

CN-935 -B SIDE-
1-650-138-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

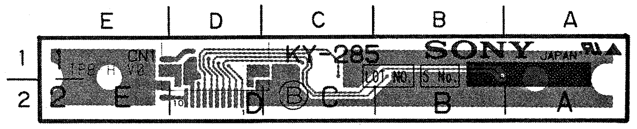

A
B
C
1
2
CN3
SONY
1-650-139
CN2
CN1
CN4
CN-936
JAPAN

CN-936 -A SIDE-
1-650-139-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

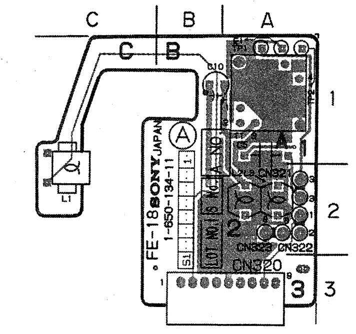
SERIAL No.	10001-10975	(UC)
	30001-30470	(J)
	40001-41210	(EK)


A
B
C
D
E
1
2
KY-285
1-650-133-11
SONY
JAPAN
EJECT
STOP
A NO.

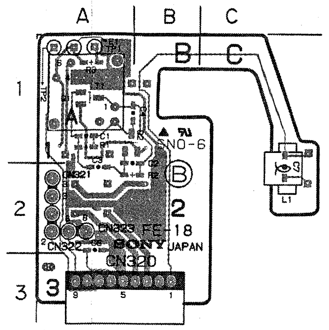
KY-285 -A SIDE-
1-650-133-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


E
D
C
B
A
1
2
CN1
KY-285
SONY
JAPAN
LOT NO.
S No.

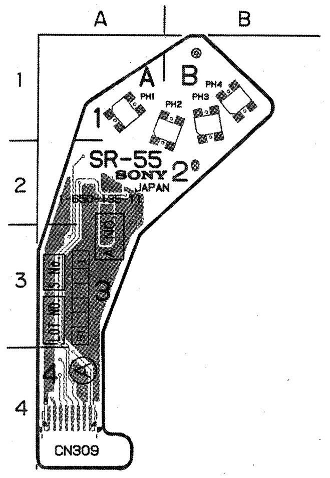
KY-285 -B SIDE-
1-650-133-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


C
B
A
1
2
3
FE-18
SONY
JAPAN
1-650-134-11
LOT NO.
S No.
CN320
CN322
L1

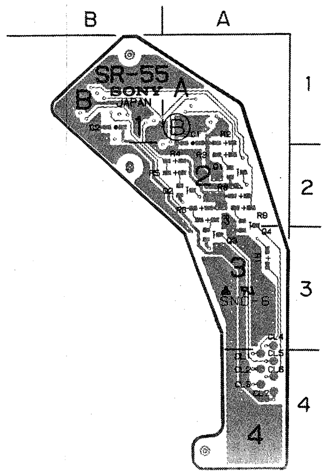
FE-18 -A SIDE-
1-650-134-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


A
B
C
1
2
3
FE-18
SONY
JAPAN
CN320
CN322
L1

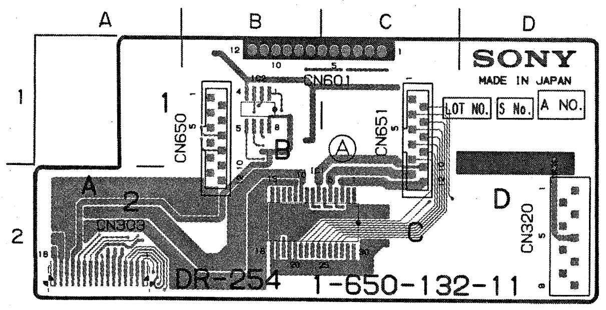
FE-18 -B SIDE-
1-650-134-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


A
B
1
2
3
4
SR-55
SONY
JAPAN
PH1
PH2
PH3
PH4
CN309
LOT NO.
S No.

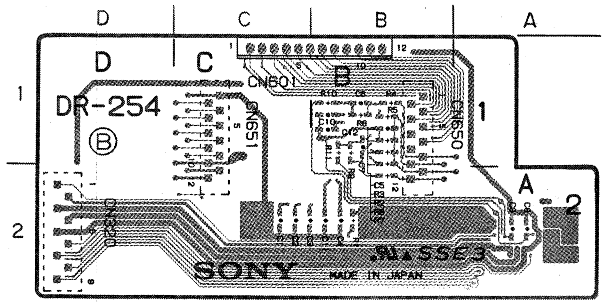
SR-55 -A SIDE-
1-650-135-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


B
A
1
2
3
4
SR-55
SONY
JAPAN

SR-55 -B SIDE-
1-650-135-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


A
B
C
D
1
2
SONY
MADE IN JAPAN
CN601
CN650
CN651
CN303
CN320
LOT NO.
S No.
A NO.
DR-254
1-650-132-11

DR-254 -A SIDE-
1-650-132-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


D
C
B
A
1
2
DR-254
CN601
CN651
CN650
CN320
SONY
MADE IN JAPAN

DR-254 -B SIDE-
1-650-132-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

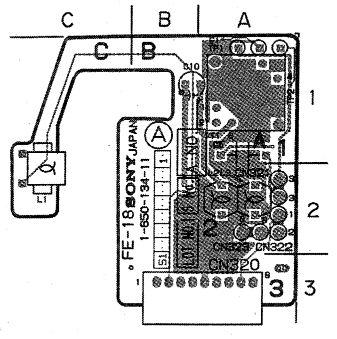
SERI

MB-

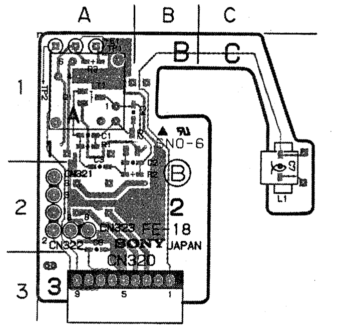
*; E

CN
CN
*CN
CN
CN
CN

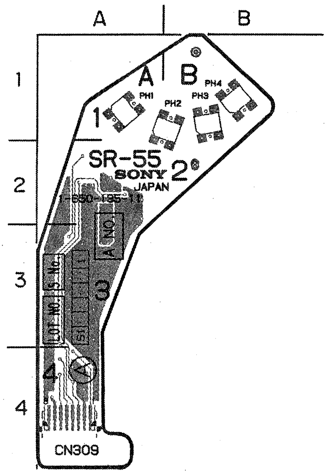
SERIAL No. 10001-11365 (UC)
30001-30490 (J)
40001-41800 (EK)


C
B
A
1
2
3
FE-18
SONY JAPAN
1-650-134-11
CN320
CN322
CN323
L1

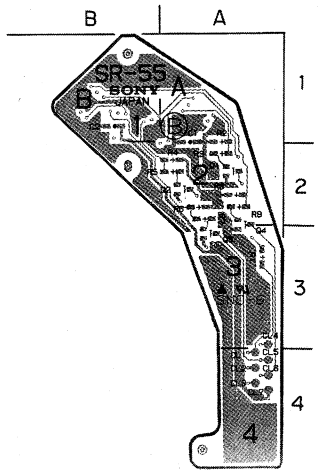
FE-18 -A SIDE-
1-650-134-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


A
B
C
1
2
3
FE-18
SONY JAPAN
CN320
CN322
CN323
L1

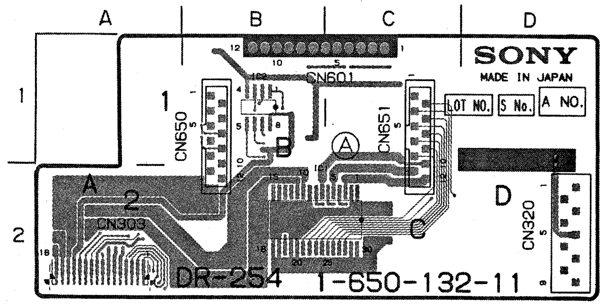
FE-18 -B SIDE-
1-650-134-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


A
B
1
2
3
4
SR-55
SONY JAPAN
1-650-135-11
PH1
PH2
PH3
PH4
CN309

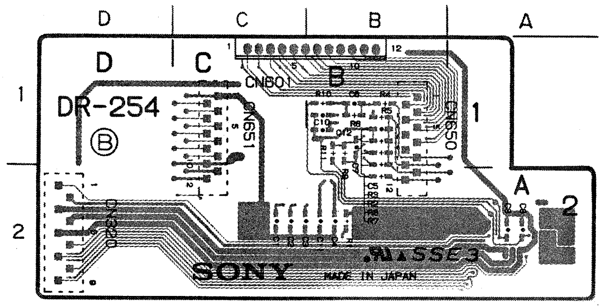
SR-55 -A SIDE-
1-650-135-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


B
A
1
2
3
4
SR-55
SONY JAPAN

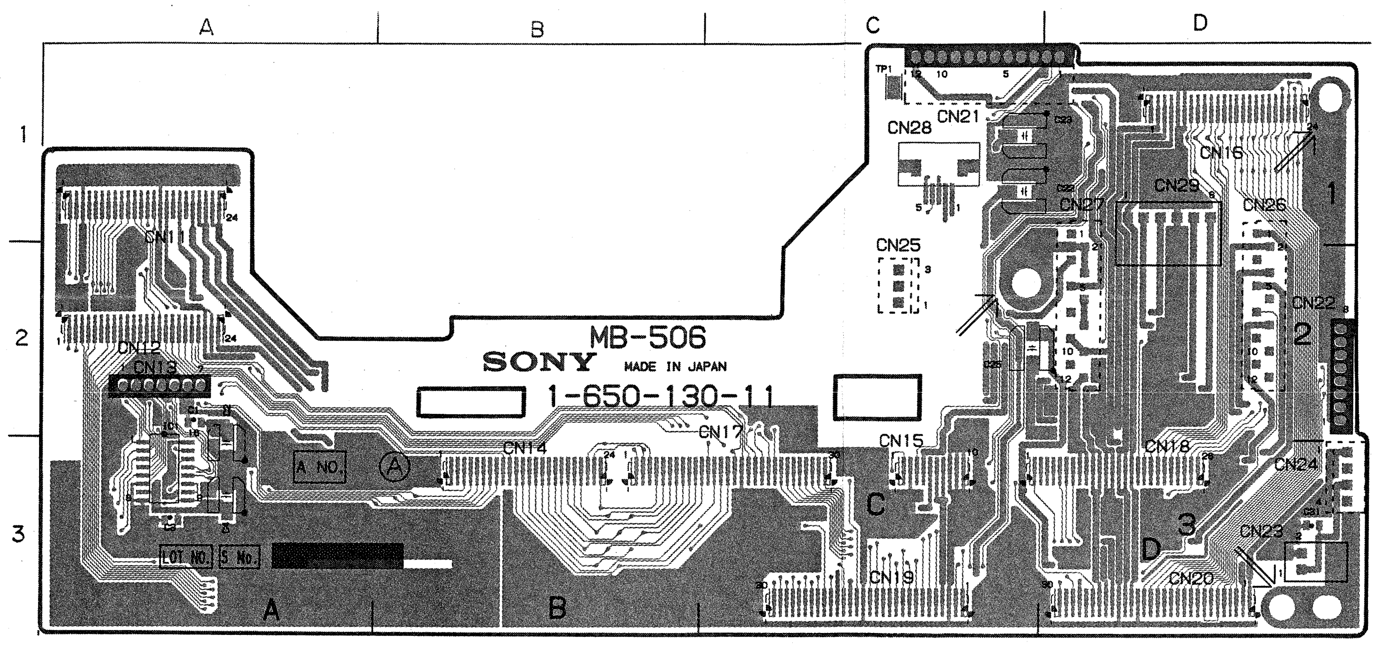
SR-55 -B SIDE-
1-650-135-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


A
B
C
D
1
2
SONY
MADE IN JAPAN
CN601
CN650
CN651
CN320
CN303
LOT NO.
S No.
A NO.
DR-254 1-650-132-11

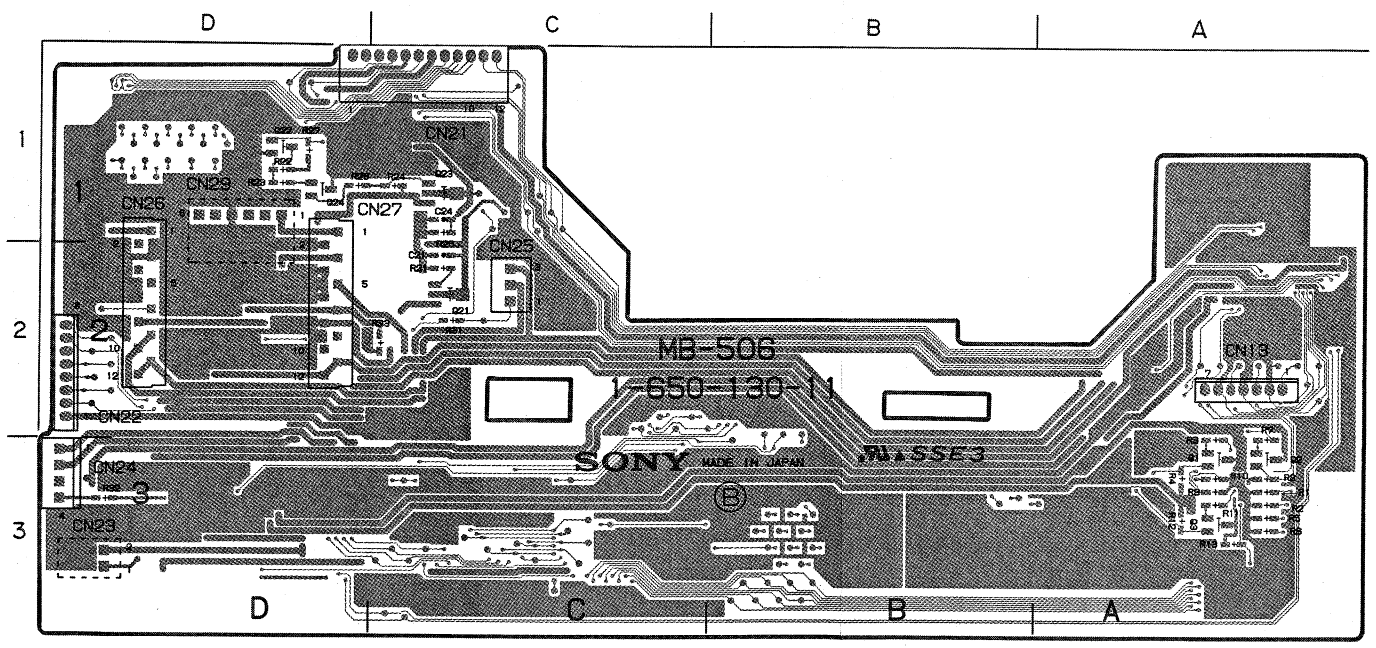
DR-254 -A SIDE-
1-650-132-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


D
C
B
A
1
2
DR-254
CN601
CN650
CN651
SONY MADE IN JAPAN
SSE3

DR-254 -B SIDE-
1-650-132-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


A
B
C
D
1
2
3
TP1
CN21
CN28
CN16
CN29
CN27
CN26
CN25
CN22
CN11
CN12
CN13
CN14
CN17
CN15
CN18
CN24
CN23
CN19
CN20
MB-506
SONY MADE IN JAPAN
1-650-130-11
A NO.
LOT NO.
S No.

MB-506 -A SIDE-
1-650-130-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


D
C
B
A
1
2
3
CN21
CN26
CN29
CN27
CN25
CN22
CN24
CN23
CN13
MB-506
1-650-130-11
SONY MADE IN JAPAN
SSE3

MB-506 -B SIDE-
1-650-130-11
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

MB-506(1-650-130-11)

*; B SIDE

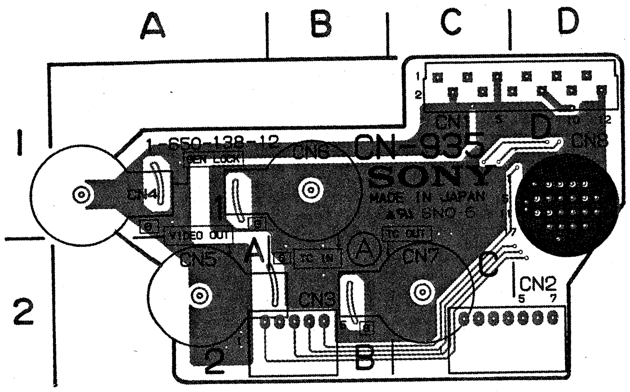
CN11	A-1	CN17	C-3	CN23	D-3	CN29	D-1	*Q3	A-3	TP1	C-1
CN12	A-2	CN18	D-3	*CN24	D-3			*Q21	C-2		
*CN13	A-2	CN19	C-3	*CN25	C-2	IC1	A-3	*Q22	D-1		
CN14	B-3	CN20	D-3	*CN26	D-1			*Q23	C-1		
CN15	C-3	*CN21	D-1	*CN27	D-1	*Q1	A-3	*Q24	D-1		
CN16	D-1	*CN22	D-2	CN28	C-1	*Q2	A-3				

*; B SIDE

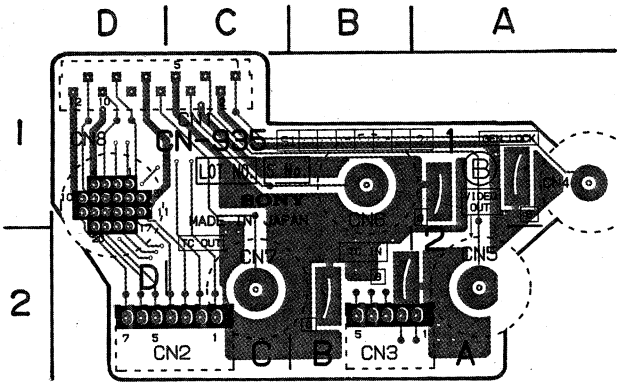
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

CN-935 BOARD
CN-936 BOARD
KY-285 BOARD

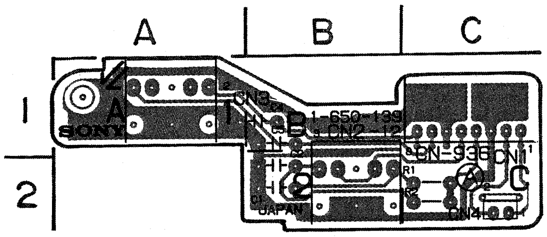
SERIAL No. 11366 and higher (UC)
30491 and higher (J)
41801 and higher (EK)


A
B
C
D
1
2
1-650-138-12
CN-935
SONY
MADE IN JAPAN
CN1
CN2
CN3
CN4
CN5
CN6
CN7
CN8
GEN LOCK
VIDEO OUT
TC IN
TC OUT

CN-935 -A SIDE-
1-650-138-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

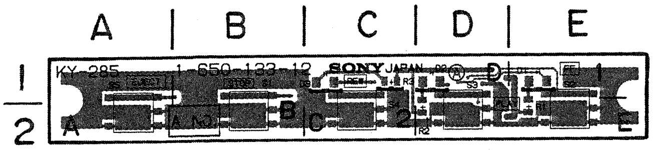

D
C
B
A
1
2
CN-935
SONY
MADE IN JAPAN
LOT NO.
S No.
CN1
CN2
CN3
CN4
CN5
CN6
CN7
CN8
GEN LOCK
VIDEO OUT
TC OUT

CN-935 -B SIDE-
1-650-138-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

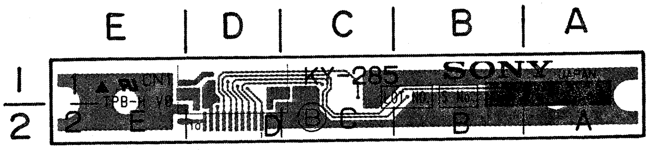

A
B
C
1
2
SONY
1-650-139-12
CN-936
CN1
CN2
CN3
CN4
JAPAN

CN-936 -A SIDE-
1-650-139-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

SERIAL No. 10976 and higher (UC)
30471 and higher (J)
41211 and higher (EK)


A
B
C
D
E
1
2
KY-285
1-650-133-12
SONY
JAPAN

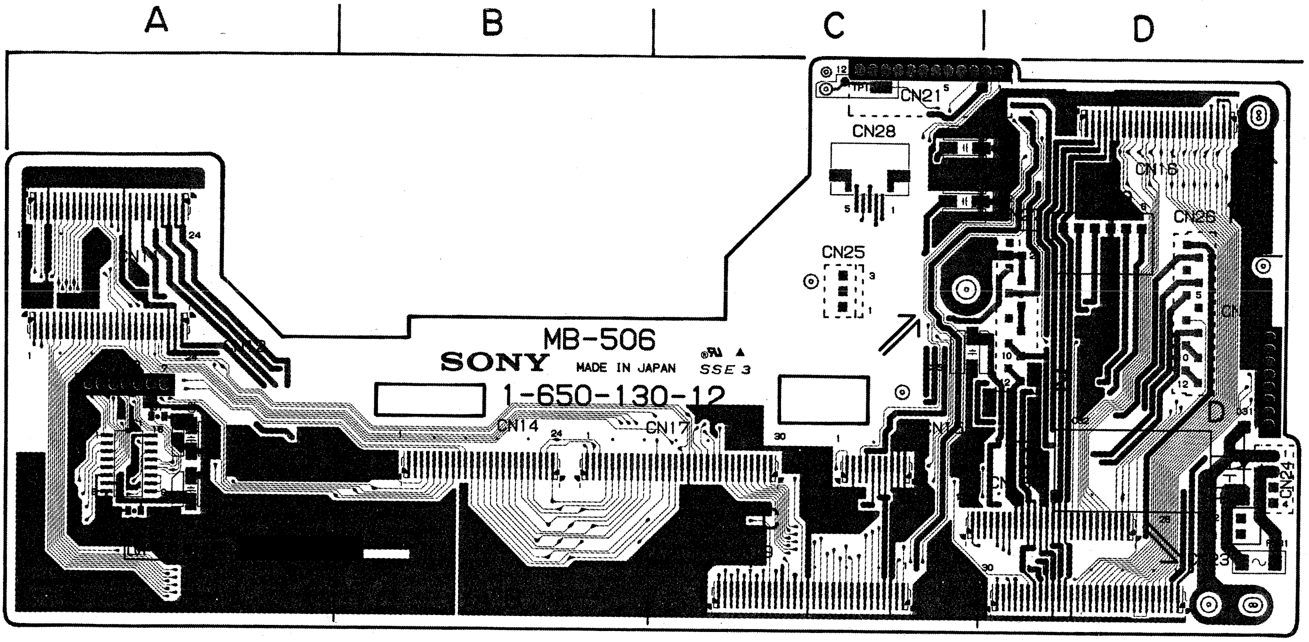
KY-285 -A SIDE-
1-650-133-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)


E
D
C
B
A
1
2
KY-285
SONY
JAPAN
CN1

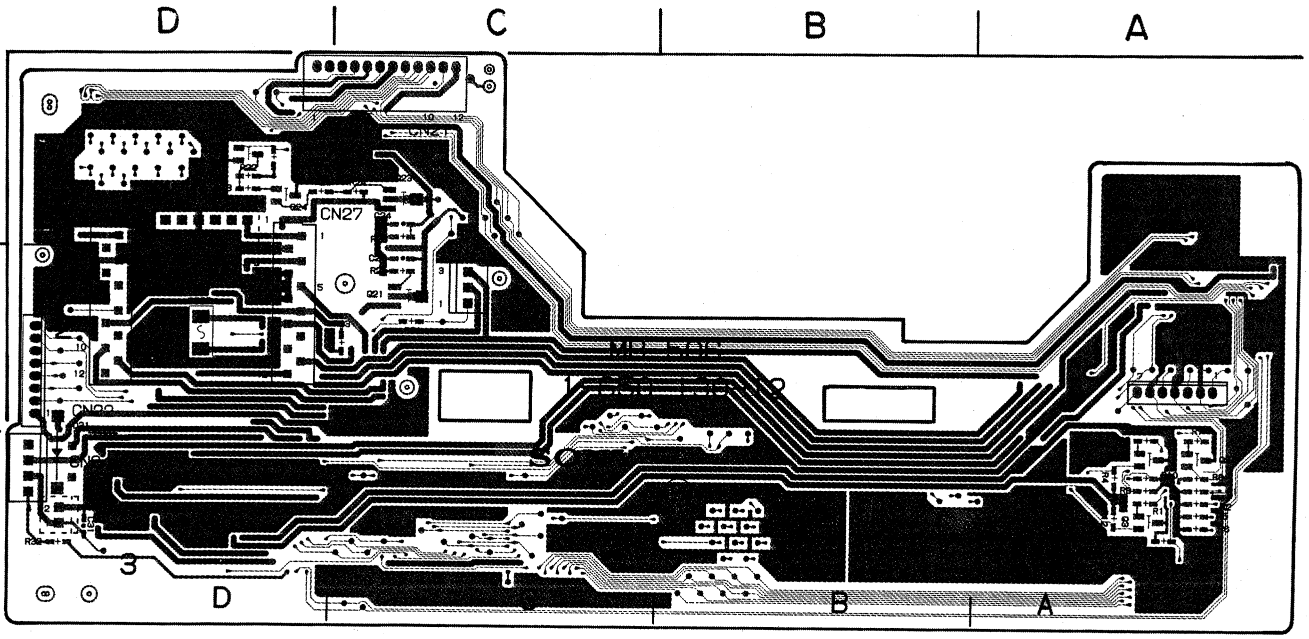
KY-285 -B SIDE-
1-650-133-12
UVW-100(J)
UVW-100(UC)
UVW-100P(EK)

MB-506 BOARD

SERIAL No. 11366 and higher (UC)
30491 and higher (J)
41801 and higher (EK)


A
B
C
D
1
2
3
CN21
TP1
12
5
CN28
5
1
CN25
3
1
CN18
CN26
MB-506
SONY
MADE IN JAPAN
SSE 3
1-650-130-12
CN14
24
1
CN17
30
1
24
CN24
CN23
30

MB-506 -A SIDE-
1-650-130-12
UVW-100(J)
UVW-100(UC)
UVW-100(EK)


D
C
B
A
1
2
3
CN27
Q21
Q22
Q23
CN22
10
12
MB-506
1-650-130-12
3
D
B
A

MB-506 -B SIDE-
1-650-130-12
UVW-100(J)
UVW-100(UC)
UVW-100(EK)

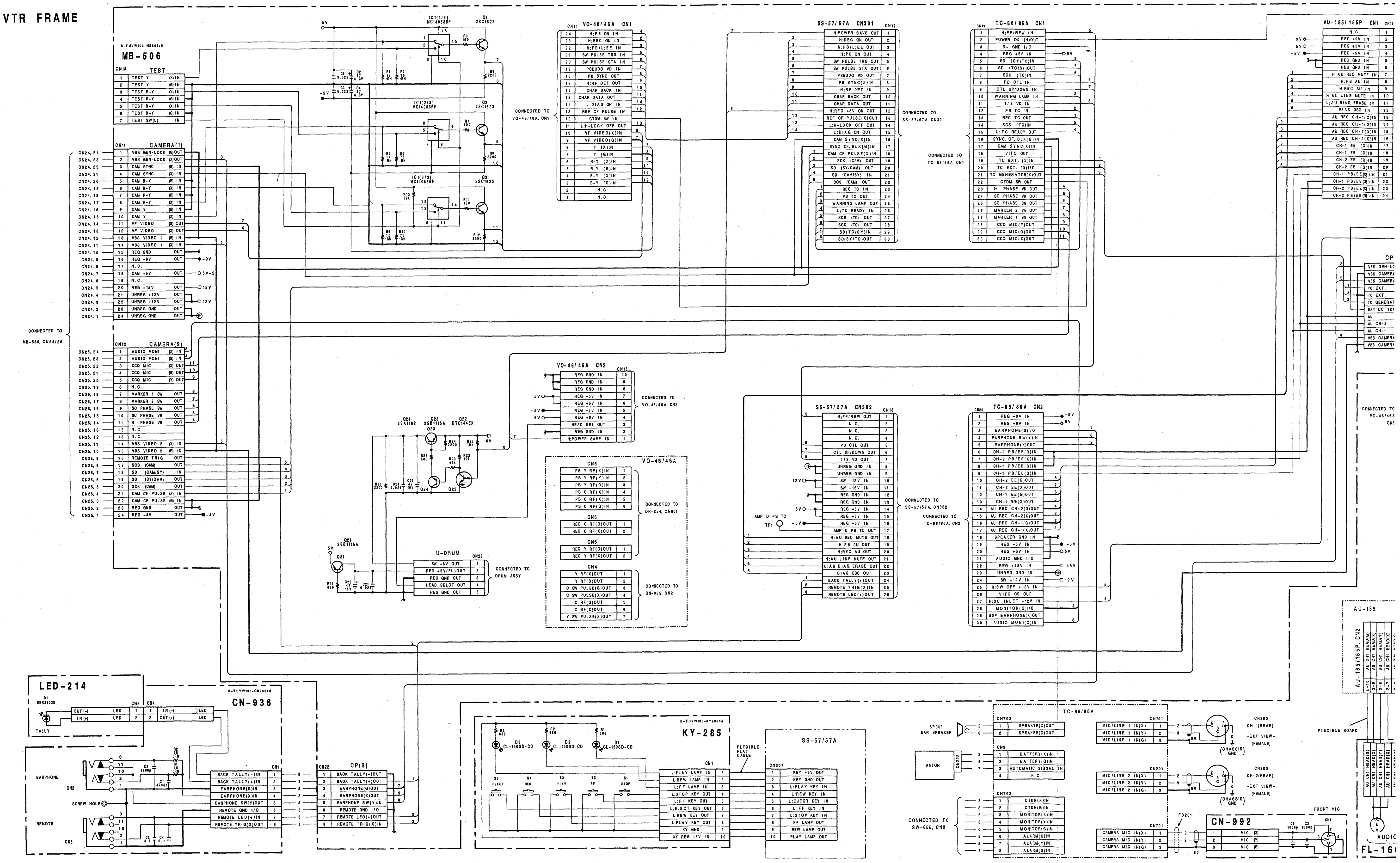
MB-506(1-650-130-12)

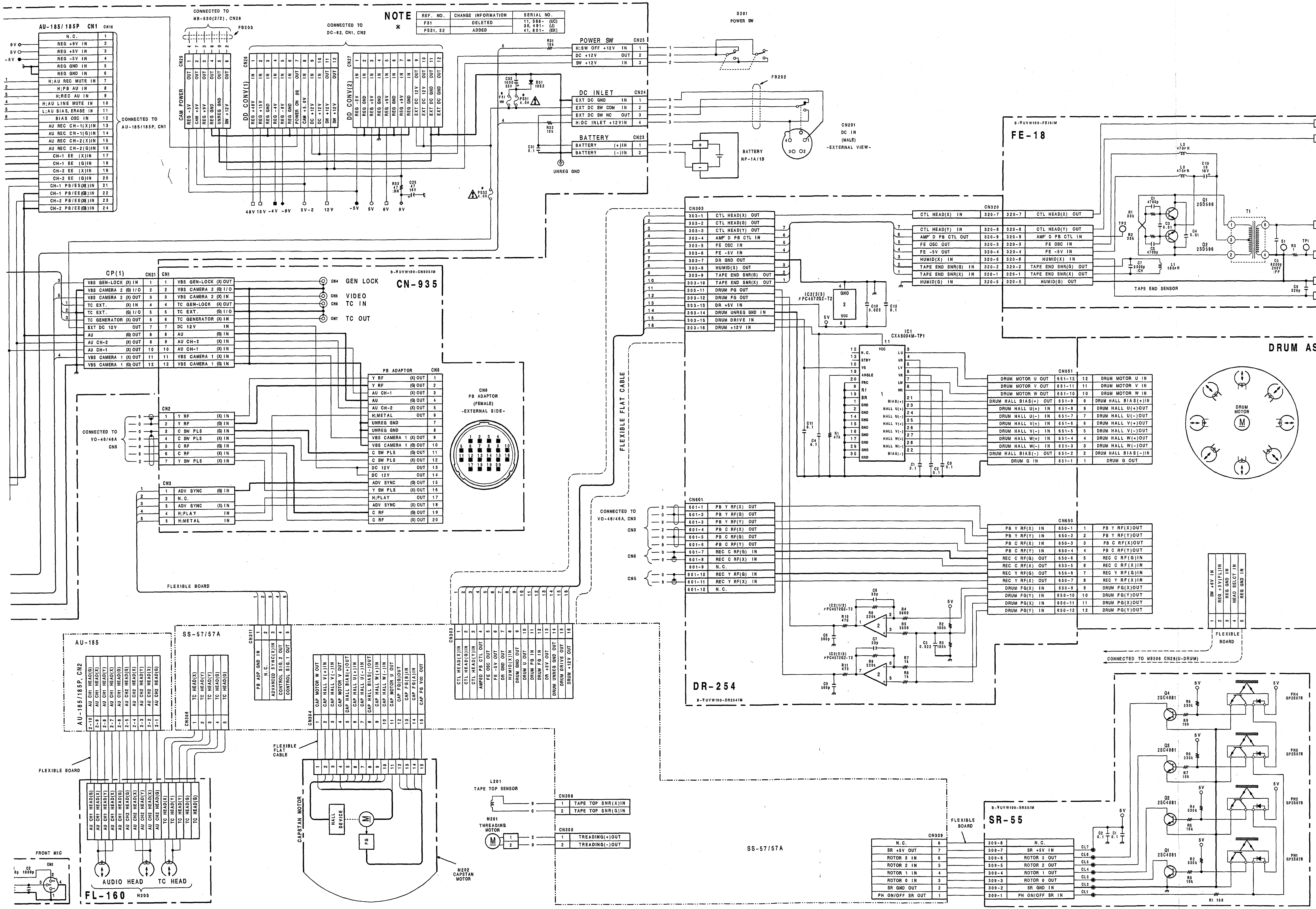
*; B SIDE

CN11	A-1	CN17	C-3	CN23	D-3	CN29	D-1	*Q3	A-3	TP1	C-1
CN12	A-2	CN18	D-3	*CN24	D-3			*Q21	C-2		
*CN13	A-2	CN19	C-3	*CN25	C-2	IC1	A-3	*Q22	D-1		
CN14	B-3	CN20	D-3	*CN26	D-1			*Q23	C-1		
CN15	C-3	*CN21	D-1	*CN27	D-1	*Q1	A-3	*Q24	D-1		
CN16	D-1	*CN22	D-2	CN28	C-1	*Q2	A-3				

*; B SIDE

VTR FRAME


MB-506
CN13 TEST
CN11 CAMERA(1)
CN12 CAMERA(2)
CONNECTED TO MB-536, CN24/25
IC1(1/3) MC14053BF
IC1(2/3) MC14053BF
IC1(3/3) MC14053BF
Q1 2SC1623
Q2 2SC1623
Q3 2SC1623
VO-46/46A CN1
CONNECTED TO VO-46/46A, CN1
SS-57/57A CN301
CONNECTED TO SS-57/57A, CN301
TC-86/86A CN1
CONNECTED TO TC-86/86A, CN1
AU-185/185P CN1
VO-46/46A CN2
CONNECTED TO VO-46/46A, CN2
Q24 2SA1162
Q23 2SB1115A
Q22 DTC144EK
Q21 2SB1115A
U-DRUM
CONNECTED TO DRUM ASSY
VO-46/46A
CONNECTED TO DR-254, CN601
CONNECTED TO CN-935, CN2
SS-57/57A CN302
CONNECTED TO SS-57/57A, CN302
TC-86/86A CN2
CONNECTED TO TC-86/86A, CN2
AMP'D PB TC TP1
LED-214
TALLY
CN-936
EARPHONE
SCREW HOLE
REMOTE
CP(2)
KY-285
EJECT
REW
PLAY
FF
STOP
FLEXIBLE FLAT CABLE
SS-57/57A
TC-86/86A
SP001 EAR SPEAKER
ANTON
CONNECTED TO SW-655, CN2
CN202 CH-1(REAR) -EXT VIEW- (FEMALE)
CN203 CH-2(REAR) -EXT VIEW- (FEMALE)
(CHASSIS) GND
CN-992
FRONT MIC
FB201
AU-185
AU-185/185P, CN2
FLEXIBLE BOARD
FL-16
AUDIO


AU-185/185P CN1
CONNECTED TO MB-530(2/2), CN28
CONNECTED TO DC-62, CN1, CN2
CONNECTED TO AU-185/185P, CN1
CAM POWER
DD CONV(1)
DD CONV(2)
POWER SW
DC INLET
BATTERY
S201 POWER SW
FB202
FB203
CN201 DC IN (MALE) -EXTERNAL VIEW-
BATTERY NP-1A/1B
UNREG GND
48V 15V -4V -9V 5V-2 12V -5V 5V 6V 9V
FE-18
CTL HEAD
FULL ERASE HEAD
DEW SENSOR
TAPE END SENSOR
CN-935
GEN LOCK
VIDEO
TC IN
TC OUT
PB ADAPTOR
CN6 PB ADAPTOR (FEMALE) -EXTERNAL SIDE-
CONNECTED TO VO-46/46A CN3
FLEXIBLE FLAT CABLE
DRUM ASSY
DRUM MOTOR
DR-254
CONNECTED TO VO-46/46A, CN3
CONNECTED TO MB506 CN28(U-DRUM)
FLEXIBLE BOARD
AU-185
SS-57/57A
FL-160
FRONT MIC
AUDIO HEAD
TC HEAD
CAPSTAN MOTOR
HALL DEVICE
M202 CAPSTAN MOTOR
L201 TAPE TOP SENSOR
M201 THREADING MOTOR
SR-55

NOTE *

REF. NO.	CHANGE INFORMATION	SERIAL NO.
F31	DELETED	11,386- (UC) 30,491- (J) 41,801- (EK)
PS31, 32	ADDED	

VTR FRAME

BM-506 BOARD
CN-935 BOARD
CN-936 BOARD
DR-254 BOARD
FE-18 BOARD
KY-285 BOARD
LED-214 BOARD
SR-55 BOARD

UVW-100(UC)
UVW-100(J)
UVW-100P(EK)

A-¥UVW100-FRAME/M#3
B-¥UVW100-MB506/M
B-¥UVW100-CN935/M
B-¥UVW100-CN936/M
B-¥UVW100-DR254/M
B-¥UVW100-FE18/M
B-¥UVW100-KY285/M
B-¥UVW100-SR55/M

SECTION 12
SEMICONDUCTOR PIN ASSIGNMENTS

この章の図の中には互換性のないダイオード、トランジスタ、ICが併記されていることがあります。部品を交換するときには必ず部品表を参照してください。
等価回路はICメーカーのData Bookに従いました。

The chart in this section may sometimes show diodes, transistors, and ICs that are not interchangeable. When replacing a component, be sure to refer to the parts list. The circuit diagram of each IC is obtained from the IC data book published by the manufacturer.

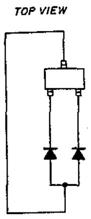
DIODE	PAGE
10E-2	12-3
1S2835	12-3
1S2836	12-3
1S2837	12-3
1SS123	12-3
1SS181	12-3
1SS184	12-3
1SS226	12-3
1SS300	12-3
1SS302	12-3
1SS303	12-3
1SS304	12-3
1SV160	12-3
CL-150SD-CD	12-3
CL-150Y-CD	12-3
DA-204U	12-3
EBR3402S	12-3
EC10QS-10	12-3
ERA81-004	12-3
ERA83	12-3
ERC04	12-3
GL-1EG112	12-3
GL-1HS112	12-3
HSM107S	12-3
M-30	12-3
MA141A	12-3
MA141WA	12-3
MA141WK	12-3
MA143	12-3
NSQ03A04	12-3
RD ? ?M	12-3
SB01-05CP	12-3
SB05-05CP	12-3
U05G	12-3
UZM ? ?B	12-3

TRANSISTOR	PAGE
2SA1162	12-4
2SA1213	12-4
2SA1226	12-4
2SA1255Y	12-4
2SA1330	12-4
2SA1576	12-4
2SA1611	12-4
2SA812	12-4
2SB1115A	12-4
2SB1203	12-4
2SB1295	12-4
2SB624	12-4
2SB798	12-4
2SB815B6	12-4
2SC1623	12-4
2SC2611	12-4
2SC2712	12-4
2SC2757	12-4
2SC2873Y	12-4
2SC3360	12-4
2SC4081	12-4
2SC4116	12-4
2SC4177-L6	12-4
2SC4178	12-4
2SC4178-F13	12-4
2SC4213B	12-4
2SD1048	12-4
2SD1615	12-4
2SD1623	12-4
2SD596	12-4
2SJ132	12-4
2SK209G	12-4
2SK852	12-4
2SK853	12-4
2SK94-X4	12-4
DTA114EU	12-4
DTA114YU	12-4
DTA144EK	12-4
DTA144EU	12-4
DTC114EU	12-4
DTC114YU	12-4
DTC144EK	12-4
DTC144EU	12-4
FMW1	12-4
FMY1	12-4
FMY3	12-4
GP1S54	12-4
GP2S07B	12-4
GP2S09	12-4
IMB2	12-4
IMH2	12-4
IMT1US	12-4
IMX1	12-4
IRFU9020	12-4
XN4601	12-4
XN6435	12-4
XN6501	12-4

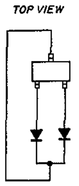
IC	PAGE
74AC00SJ	12-5
74AC04SJ	12-5
AN2011S	12-5
BR9021BF	12-5
BR93LC46F	12-5
CX20030	12-6
CX22017	12-6
CXA1098Q	12-7
CXA1179N	12-7
CXA1480Q	12-34
CXA1592R	12-8
CXA8004M	12-9
CXD1132Q	12-10
CXD1151Q	12-11
CXD1171M	12-11
CXD1175AM	12-9
CXD1216M	12-12
CXD1217M	12-12
CXD1250M	12-13
CXD1256AR	12-14
CXD1357Q	12-34
CXD8154BM	12-15
CXL5504M	12-15
CXP80624	12-28
HD14053BFP	12-19
HD6413308F6	12-16
LA7205M	12-15
LM1881M	12-15
LM2901M	12-19
M5203FP	12-29
M5237ML	12-17

SEMICONDUCTOR INDEX

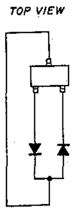
IC	PAGE
M62352GP	12-17
M6M80011AFP	12-17
MB88347PFV-G-BND	12-17
MBM27C512-20	12-18
MBM27C512P-15PF	12-18
MC14013BF	12-18
MC14046BF	12-18
MC14052BF	12-18
MC14053BF	12-19
MC14066BF	12-19
MC14070BF	12-19
MC14071BF	12-19
MC14538BF	12-19
MC34182M	12-19
MC74HC76F	12-21
NJM1496M	12-19
NJM2091M	12-19
NJM2903M	12-20
NJM2904M	12-29
NJM319M	12-20
NJM360M	12-20
NJM386M	12-20
NJM4556M	12-20
NJM4558M	12-20
NJM4560MD	12-20
NJM78L05UA	12-20
RH5RA50AA-T1	12-20
RH5RE50AA	12-20
S-8054ALR	12-20
S-8054HN	12-20
SC7S02F	12-20
SC7S04F	12-22
SN74HC02ANS	12-34
SN74HC04ANS	12-34
SN74HC08APW	12-21
SN74HC151ANS	12-21
SN74HC32APW	12-21
SN74HC74ANS	12-21
SN74HC74APW	12-21
SN74HC76NS	12-21
SN74HCLS123NS	12-21
TA7291F	12-21
TC4052BFHB	12-18
TC4053BFS	12-19
TC4066BFS	12-19
TC40H000F	12-22
TC40H008F	12-21
TC40H027F	12-22
TC40H193F	12-22
TC4S01F	12-20
TC4S11F	12-22
TC4S30F	12-22
TC4S584F	12-22
TC4S66F	12-22
TC4S69F	12-22
TC4S71F	12-23
TC4S81F	12-23
TC4SU69F	12-22
TC4W53F	12-23
TC74HC221AF	12-23
TC74HC4053AF	12-23
TC74HC4066AFS	12-23
TC74HC4538AF	12-23
TC74VHC00F	12-34
TC74VHCU04F	12-34
TC7S04F	12-22
TC7SH04FU	12-22
TC7SU04F	12-22
TC7S08F	12-23
TC7W00F	12-24
TL062CPS	12-19
TL064CNS	12-24
TL1451ACNS	12-24
TL7700CPS	12-24
UPC1663G	12-24
UPC2372AGK	12-30
UPC2372GF-3B9	12-26
UPC311G2	12-31
UPC324G2	12-24
UPC358G2	12-24
UPC4558G2	12-31
UPC4572G2	12-24
UPD6451AGT	12-25
UPD75516GF	12-35
UPC78064GF	12-32



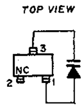
1S2835
1S2836
1SS181
1SS300
1SS303
MA141WA



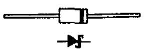
1S2837
1SS184
1SS304
MA141WK



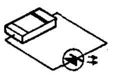
1SS123
1SS226
1SS302
DA204U
HSM107S
MA143


TOP VIEW
3
NC
2
1

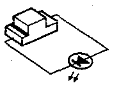
1SV160



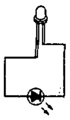
10E-2
ERA81-004
ERA83



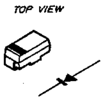
CL-150SD-CD ; ORANGE



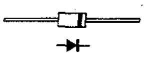
CL-150Y-CD ; AMBER



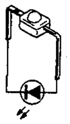
EBR3402S ; RED



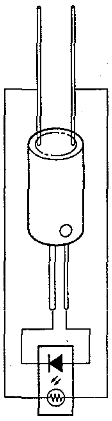
EC10QS-10
NSQ03A04



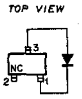
ERC04



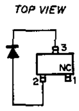
GL-1EG112 ; YELLOWISH GREEN
GL-1HS112 ; ORANGE



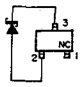
M-30


TOP VIEW
3
NC
2
1

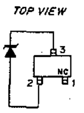
MA141A


TOP VIEW
3
NC
2
1

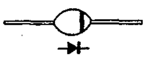
RD ? ?M
UZM ? ?B



SB01-05CP

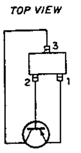

TOP VIEW
3
NC
2
1

SB05-05CP

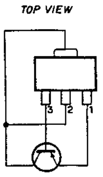


U05G

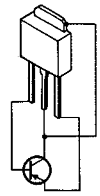
TRANSISTOR


TOP VIEW
3
2
1

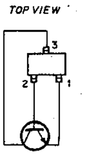
2SA1162
2SA1226
2SA1255Y
2SA1330
2SA1576
2SA1611
2SA812
2SB1295
2SB624
2SB815B6


TOP VIEW
3
2
1

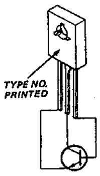
2SA1213
2SB1115A
2SB798



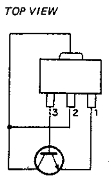
2SB1203


TOP VIEW
3
2
1

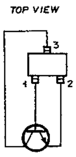
2SC1623
2SC2712
2SC2757
2SC3360
2SC4081
2SC4177-L6
2SC4178
2SC4178-F13
2SC4213B
2SD1048
2SD1623
2SD596


TYPE NO. PRINTED

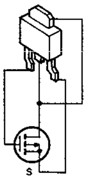
2SC2611


TOP VIEW
3
2
1

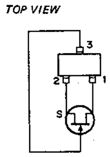
2SC2873Y
2SD1615


TOP VIEW
3
1
2

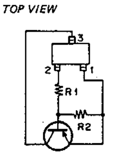
2SC4116



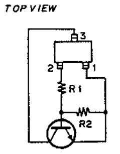
2SJ132


TOP VIEW
3
2
1
S

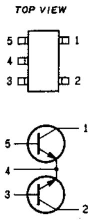
2SK209G
2SK852
2SK853
2SK94-X4


TOP VIEW
3
2
1
R1
R2

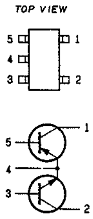
DTA114EU
(R1=10K R2=10K)
DTA114YU
(R1=10K R2=47K)
DTA144EK
(R1=47K R2=47K)
DTA144EU
(R1=47K R2=47K)


TOP VIEW
3
2
1
R1
R2

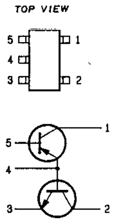
DTC114EU
(R1 = 10K, R2 = 10K)
DTC114YU
(R1 = 10K, R2 = 47K)
DTC144EK
(R1 = 47K, R2 = 47K)
DTC144EU
(R1 = 47K, R2 = 47K)


TOP VIEW
5
4
3
1
2

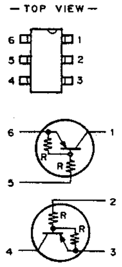
FMW1


TOP VIEW
5
4
3
1
2

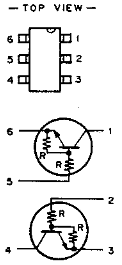
FMY1


TOP VIEW
5
4
3
1
2

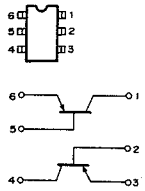
FMY3


— TOP VIEW —
6
5
4
1
2
3
R

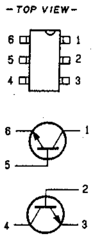
IMB2 (R = 47K)


— TOP VIEW —
6
5
4
1
2
3
R

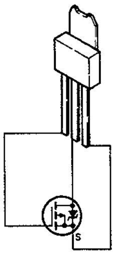
IMH2 (R = 47K)



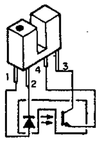
IMT1US


- TOP VIEW -
6
5
4
1
2
3

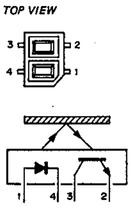
IMX1



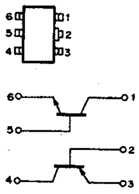
IRFU9020



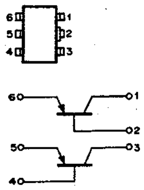
GP-1S54


TOP VIEW
3
4
2
1

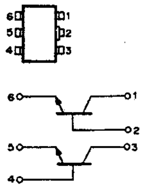
GP-2S07B
GP-2S09



XN4601

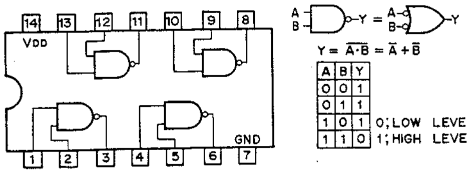


XN6435



XN6501

74AC00SJ (NS) FLAT PACKAGE
C-MOS QUAD 2-INPUT NAND GATES
– TOP VIEW –


14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7
A
B
Y
A
B
Y

$Y = \overline{A \cdot B} = \overline{A} + \overline{B}$

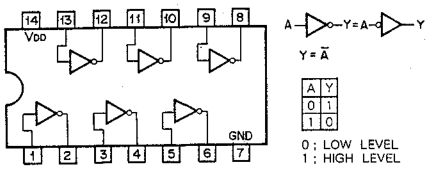
A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

0; LOW LEVEL
1; HIGH LEVEL

NOTE :

TYPE	VDD
TC74AC00 TYPE TC74VHC00	+2 to +5.5V
MC74HCT00N	+5V
74ACT00 TYPE	+4.5 to +5.5V
OTHER TYPES	+2 to +6V

74AC04SJ (NS) FLAT PACKAGE
SN74HC04ANS (TI) FLAT PACKAGE
C-MOS HEX INVERTERS
– TOP VIEW –


14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7
A
Y
A
Y

$Y = \overline{A}$

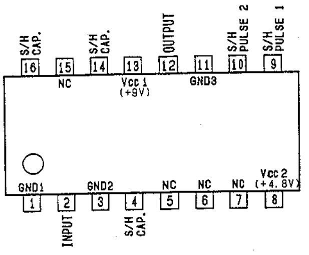
A	Y
0	1
1	0

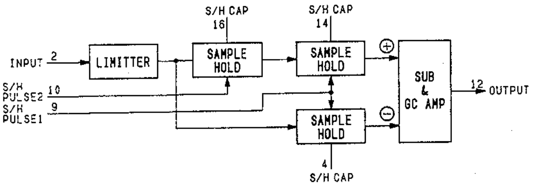
0 ; LOW LEVEL
1 ; HIGH LEVEL

NOTE :

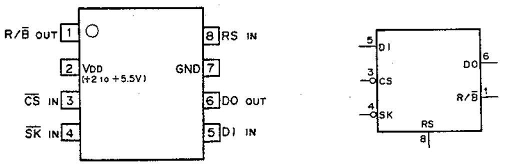
TYPE	VDD
74HCT04 TYPE	+5V
TC74AC04 TYPE TC74VHC04 TYPE	+2 to +5.5V
74ACT04 TYPE	+4.5 to +5.5V
OTHER TYPES	+2 to +6V

AN2011S (MATSUSHITA)
CORRELATION DOUBLE SAMPLING PROCESSER
– TOP VIEW –


S/H CAP.
S/H CAP.
OUTPUT
S/H PULSE 2
S/H PULSE 1
16
15
14
13
12
11
10
9
NC
Vcc 1 (+9V)
GND3
GND1
GND2
NC
NC
NC
Vcc 2 (+4.8V)
1
2
3
4
5
6
7
8
INPUT
S/H CAP.

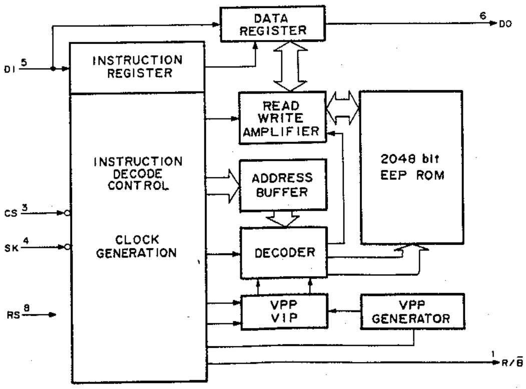

S/H CAP 16
S/H CAP 14
INPUT 2
LIMITTER
SAMPLE HOLD
SAMPLE HOLD
SAMPLE HOLD
S/H PULSE2 10
S/H PULSE1 9
⊕
⊖
SUB & GC AMP
12 OUTPUT
4 S/H CAP

BR9021BF (ROHM) FLAT PACKAGE
C-MOS 2k (128x16) BITS SERIAL EEPROM
– TOP VIEW –

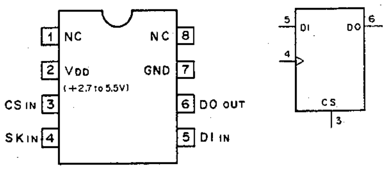

R/B̄ OUT 1
2 VDD (+2 to +5.5V)
C̄S̄ IN 3
S̄K̄ IN 4
8 RS IN
GND 7
6 DO OUT
5 DI IN
5 DI
3 CS
4 SK
DO 6
R/B̄ 1
RS 8

INPUT
CS ; CHIP SELECT
DI ; OP CODE, ADDRESS, AND SERIAL DATA
RS ; RESET
SK ; SERIAL DATA CLOCK

OUTPUT
DO ; SERIAL DATA OUTPUT
R/B ; READY/BUSY SIGNAL

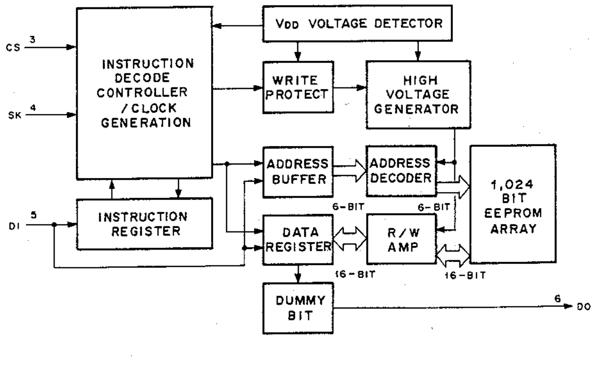

DATA REGISTER
6 DO
DI 5
INSTRUCTION REGISTER
READ WRITE AMPLIFIER
2048 bit EEP ROM
INSTRUCTION DECODE CONTROL
ADDRESS BUFFER
CS 3
SK 4
CLOCK GENERATION
DECODER
RS 8
VPP VIP
VPP GENERATOR
1 R/B̄

BR93LC46F (ROHM) FLAT PACKAGE
C-MOS 1024 (64x16) BIT ELECTRICALLY ERASABLE PROM
– TOP VIEW –

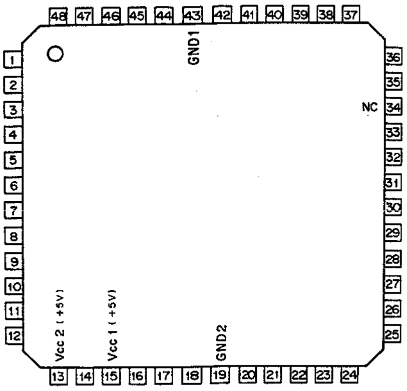

1 NC
NC 8
2 VDD (+2.7 to 5.5V)
GND 7
CS IN 3
6 DO OUT
SK IN 4
5 DI IN
5 DI
DO 6
4
CS 3

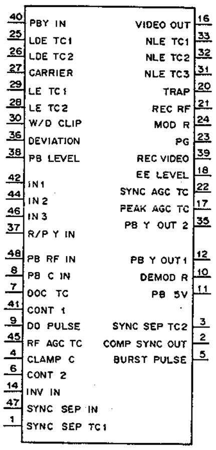
INPUT
CS ; CHIP SELECT
DI ; SERIAL DATA
SK ; SERIAL CLOCK

OUTPUT
DO ; SERIAL DATA


CS 3
SK 4
DI 5
INSTRUCTION DECODE CONTROLLER / CLOCK GENERATION
VDD VOLTAGE DETECTOR
WRITE PROTECT
HIGH VOLTAGE GENERATOR
ADDRESS BUFFER
ADDRESS DECODER
1,024 BIT EEPROM ARRAY
6-BIT
6-BIT
INSTRUCTION REGISTER
DATA REGISTER
R/W AMP
16-BIT
16-BIT
DUMMY BIT
6 DO

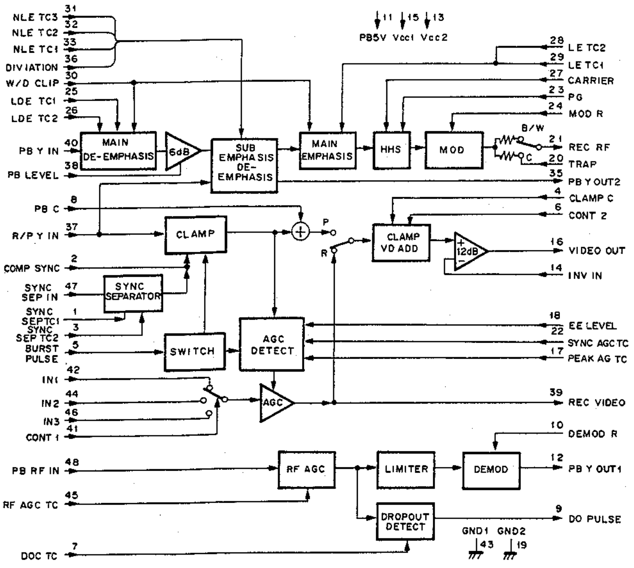
CX20030 (SONY) FLAT PACKAGE
VIDEO Y SIGNAL PROCESSOR
– TOP VIEW –


48 47 46 45 44 43 42 41 40 39 38 37
1 2 3 4 5 6 7 8 9 10 11 12
36 35 34 33 32 31 30 29 28 27 26 25
13 14 15 16 17 18 19 20 21 22 23 24
GND1
NC
Vcc 2 (+5V)
Vcc 1 (+5V)
GND2


40 PBY IN
25 LDE TC1
26 LDE TC2
27 CARRIER
29 LE TC1
28 LE TC2
30 W/D CLIP
36 DEVIATION
38 PB LEVEL
42 IN1
44 IN2
46 IN3
37 R/P Y IN
48 PB RF IN
8 PB C IN
7 DOC TC
41 CONT 1
9 DO PULSE
45 RF AGC TC
4 CLAMP C
6 CONT 2
14 INV IN
47 SYNC SEP IN
1 SYNC SEP TC1
VIDEO OUT 16
NLE TC1 33
NLE TC2 32
NLE TC3 31
TRAP 20
REC RF 21
MOD R 24
PG 23
REC VIDEO 39
EE LEVEL 18
SYNC AGC TC 22
PEAK AGC TC 17
PB Y OUT 2 35
PB Y OUT1 12
DEMOD R 10
PB 5V 11
SYNC SEP TC2 3
COMP SYNC OUT 2
BURST PULSE 5

($V_{DD} = +5V$)

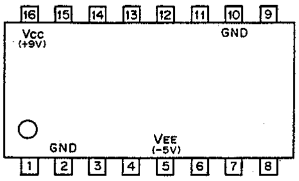
PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL
1	I	SYNC SEP TC1	17	I	PEAK AGC TC	33	I	NLE TC1
2	O	COMP SYNC	18	I	EE LEVEL	34	–	NC
3	I	SYNC SEP TC2	19	–	GND2	35	O	PB Y OUT2
4	I	CLAMP C	20	I	TRAP	36	I	DEVIATION
5	I	BURST PULSE	21	O	REC RF	37	I	R/P Y IN
6	I	CONT2	22	I	SYNC AGC TC	38	I	PB LEVEL
7	I	DOC TC	23	I	PG	39	O	REC VIDEO
8	I	PB C	24	I	MOD R	40	I	PB Y IN
9	O	DO PULSE	25	I	LDE TC1	41	I	CONT1
10	I	DEMOD R	26	I	LDE TC2	42	I	IN1
11	I	PB 5V	27	I	CARRIER	43	–	GND1
12	O	PB Y OUT1	28	I	LE TC2	44	I	IN2
13	–	Vcc2	29	I	LE TC1	45	I	RF AGC TC
14	I	INV IN	30	I	W/D CLIP	46	I	IN3
15	–	Vcc1	31	I	NLE TC3	47	I	SYNC SEP IN
16	O	VIDEO OUT	32	I	NLE TC2	48	I	PB RF IN

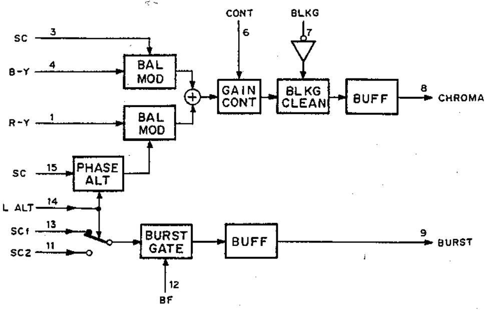

NLE TC3 31
NLE TC2 32
NLE TC1 33
DIVIATION 36
W/D CLIP 30
LDE TC1 25
LDE TC2 26
PB Y IN 40
PB LEVEL 38
MAIN DE-EMPHASIS
6dB
SUB EMPHASIS DE-EMPHASIS
MAIN EMPHASIS
HHS
MOD
11 15 13
PB5V Vcc1 Vcc2
28 LE TC2
29 LE TC1
27 CARRIER
23 PG
24 MOD R
B/W
C
21 REC RF
20 TRAP
35 PB Y OUT2
4 CLAMP C
6 CONT 2
PB C 8
R/P Y IN 37
CLAMP
P
R
CLAMP VD ADD
12dB
16 VIDEO OUT
14 INV IN
COMP SYNC 2
SYNC SEP IN 47
SYNC SEPARATOR
SYNC SEPTC1 1
SYNC SEP TC2 3
BURST PULSE 5
SWITCH
AGC DETECT
18 EE LEVEL
22 SYNC AGC TC
17 PEAK AG TC
IN1 42
IN2 44
IN3 46
CONT 1 41
AGC
39 REC VIDEO
10 DEMOD R
PB RF IN 48
RF AGC
LIMITER
DEMOD
12 PB Y OUT1
RF AGC TC 45
DROPOUT DETECT
9 DO PULSE
GND1 GND2
43 19
DOC TC 7

INPUT
BURST PULSE : BURST PULSE INPUT
CARRIER : FM MODULATOR CARRIER CONTROL INPUT
CLAMP C : EXTERNAL CAPACITOR FOR CLAMPING INPUT
CONT 1 : INTERNAL SWITCH CONTROL INPUT
CONT 2 : MUTING AND VD-ADD CONTROL INPUT
DEMOD R : EXTERNAL RESISTOR FOR FM DEMODULATOR INPUT
DEVIATION : DEVIATION CONTROL INPUT
DOC TC : EXTERNAL CAPACITOR FOR DROPOUT DETECTION INPUT
EE LEVEL : SYNC AGC CONTROL INPUT
IN 1 – IN 3 : RECORDING VIDEO SIGNAL INPUTS
INV IN : INVERTING INPUT FOR VIDEO CIRCUIT
LDE TC1,TC2 : EXTERNAL RESISTOR FOR LINEAR DE-EMPHASIS INPUTS
LE TC1,TC2 : EXTERNAL CR FOR LINEAR EMPHASIS INPUTS
MOD R : EXTERNAL RESISTOR FOR FM MODULATOR INPUT
NLE TC1 – NLE TC3
: EXTERNAL CAPACITOR FOR NON-LINEAR EMPHASIS INPUTS
PB 5V : POWER FOR PLAYBACK SYSTEM INPUT
PB C : PB CHROMA INPUT AND M/C CONTROL INPUT
PB LEVEL : PB Y OUT2 SIGNAL CONTROL INPUT
PB RF IN : PB RF (FM) INPUT
PB Y IN : PB Y SIGNAL FOR DE-EMPHASIS INPUT
PEAK AGC TC : EXTERNAL CR INPUT FOR PEAK AGC
PG : PG (30Hz) SIGNAL INPUT
RF AGC TC : EXTERNAL CR FOR RF AGC INPUT
R/P Y IN : Y SIGNAL FOR CLAMPING INPUT
SYNC AGC TC : EXTERNAL CR INPUT FOR SYNC AGC
SYNC SEP IN : SYNC SEPARATION SIGNAL INPUT
SYNC SEP TC1,TC2
: EXTERNAL CR INPUT FOR SYNC SEPARATION
TRAP : TRAP INPUT
W/D CLIP : LINEAR EMPHASIS AND W/D CLIP CONTROL INPUT

OUTPUT
COMP SYNC : COMPOSITE SYNC OUTPUT
DO PULSE : DROPOUT PULSE OUTPUT
PB Y OUT1 : FREQUENCY DEMODULATOR OUTPUT
PB Y OUT2 : PB Y OUTPUT
REC RF : Y-FM SIGNAL OUTPUT
REC VIDEO : AMPLIFIED Y SIGNAL OUTPUT
VIDEO OUT : VIDEO OUTPUT

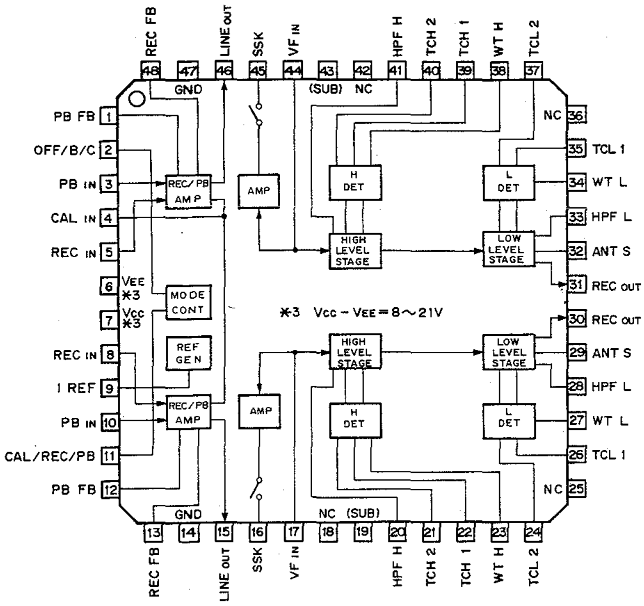
CX22017 (SONY)
VIDEO SIGNAL PROCESSOR
– TOP VIEW –


16 15 14 13 12 11 10 9
Vcc (+9V)
GND
GND
VEE (-5V)
1 2 3 4 5 6 7 8


CONT
6
BLKG
7
SC 3
B-Y 4
BAL MOD
R-Y 1
BAL MOD
GAIN CONT
BLKG CLEAN
BUFF
8 CHROMA
SC 15
PHASE ALT
L ALT 14
SC1 13
SC2 11
BURST GATE
BUFF
9 BURST
12
BF

CXA1098Q (SONY) FLAT PACKAGE

2 CHANNELS DOLBY TYPE-B/C NOISE REDUCTION
– TOP VIEW –

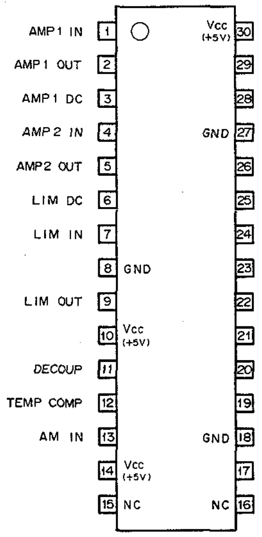

REC FB
LINE OUT
SSK
VF IN
HPF H
TCH 2
TCH 1
WT H
TCL 2
48
47
46
45
44
43
42
41
40
39
38
37
GND
(SUB) NC
PB FB 1
OFF/B/C 2
PB IN 3
CAL IN 4
REC IN 5
6 VEE *3
7 Vcc *3
REC IN 8
I REF 9
PB IN 10
CAL/REC/PB 11
PB FB 12
REC/PB AMP
AMP
H DET
L DET
HIGH LEVEL STAGE
LOW LEVEL STAGE
MODE CONT
REF GEN
*3 Vcc – VEE = 8∼21V
NC 36
35 TCL 1
34 WT L
33 HPF L
32 ANT S
31 REC OUT
30 REC OUT
29 ANT S
28 HPF L
27 WT L
26 TCL 1
NC 25
GND
NC (SUB)
13
14
15
16
17
18
19
20
21
22
23
24

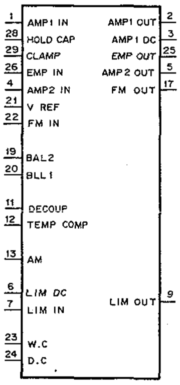
ANT S ; ANTI-SATURATION
CAL IN ; CALIBRATION INPUT
CAL/REC/PB ; CALIBRATION/REC/PB SELECT
HPF H ; HPF FOR HIGH-LEVEL-STAGE
HPF L ; HPF FOR LOW-LEVEL-STAGE
IREF ; REFERENT CURRENT SOURCE
OFF/B/C ; DOLBY OFF/DOLBY TYPE-B/C SELECT
PB FB ; PB FEEDBACK INPUT
REC FB ; REC FEEDBACK INPUT
SSK ; SPECTRAL SKEWING SWITCH

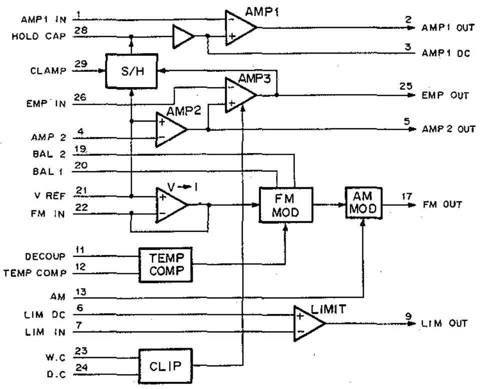
TCH 1 ; TIME CONSTANT-1 FOR HLS*1
TCH 2 ; TIME CONSTANT-2 FOR HLS
TCL 1 ; TIME CONSTANT-1 FOR LLS*2
TCL 2 ; TIME CONSTANT-2 FOR LLS
VF IN ; ENCODER INPUT
WT H ; WEIGHTING FOR HLS
WT L ; WEIGHTING FOR LLS
*1: HIGH-LEVEL-STAGE
*2: LOW-LEVEL-STAGE

CXA1179N (SONY)

VIDEO Y/C REC FM MODULATOR FOR BETACAM
– TOP VIEW –


AMP1 IN 1
AMP1 OUT 2
AMP1 DC 3
AMP2 IN 4
AMP2 OUT 5
LIM DC 6
LIM IN 7
8 GND
LIM OUT 9
10 Vcc (+5V)
DECOUP 11
TEMP COMP 12
AM IN 13
14 Vcc (+5V)
15 NC
Vcc (+5V) 30
30 CLAMP IN 29
29 HOLD CAP 28
GND 27
26 EMP IN
25 EMP OUT
24 D.C
23 W.C
22 FM IN
21 V REF IN
20 BAL 1
19 BAL 2
GND 18
17 FM OUT
NC 16


1 AMP1 IN
28 HOLD CAP
29 CLAMP
26 EMP IN
4 AMP2 IN
21 V REF
22 FM IN
19 BAL2
20 BLL1
11 DECOUP
12 TEMP COMP
13 AM
6 LIM DC
7 LIM IN
23 W.C
24 D.C
AMP1 OUT 2
AMP1 DC 3
EMP OUT 25
AMP2 OUT 5
FM OUT 17
LIM OUT 9

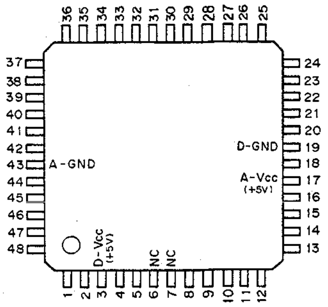

AMP1 IN 1
HOLD CAP 28
CLAMP 29
EMP IN 26
AMP 2 4
BAL 2 19
BAL 1 20
V REF 21
FM IN 22
DECOUP 11
TEMP COMP 12
AM 13
LIM DC 6
LIM IN 7
W.C 23
D.C 24
AMP1
S/H
AMP3
AMP2
V→I
FM MOD
AM MOD
TEMP COMP
LIMIT
CLIP
2 AMP1 OUT
3 AMP1 DC
25 EMP OUT
5 AMP 2 OUT
17 FM OUT
9 LIM OUT

INPUT
AM ; AM SIGNAL IN
AMP1 IN ; VIDEO SIGNAL AMP1 IN
AMP2 IN ; VIDEO SIGNAL AMP2 IN
CLAMP ; CLAMP PULSE IN
EMP IN ; EMPHASIS AMP IN
FM IN ; FM MODULATOR IN
LIM IN ; LIMITER IN
V REF ; VOLTAGE REFERENCE IN

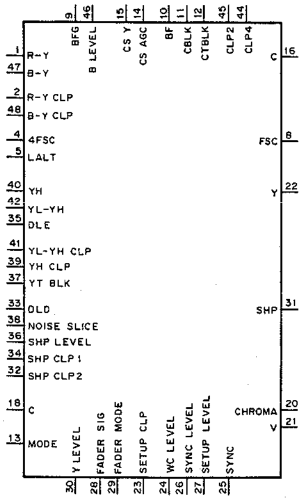
OUTPUT
AMP1 OUT ; VIDEO SIGNAL AMP1 OUT
AMP2 OUT ; VIDEO SIGNAL AMP2 OUT
EMP OUT ; EMPHASIS AMP OUT
FM OUT ; FM MODULATOR OUT
LIM OUT ; LIMITER OUT

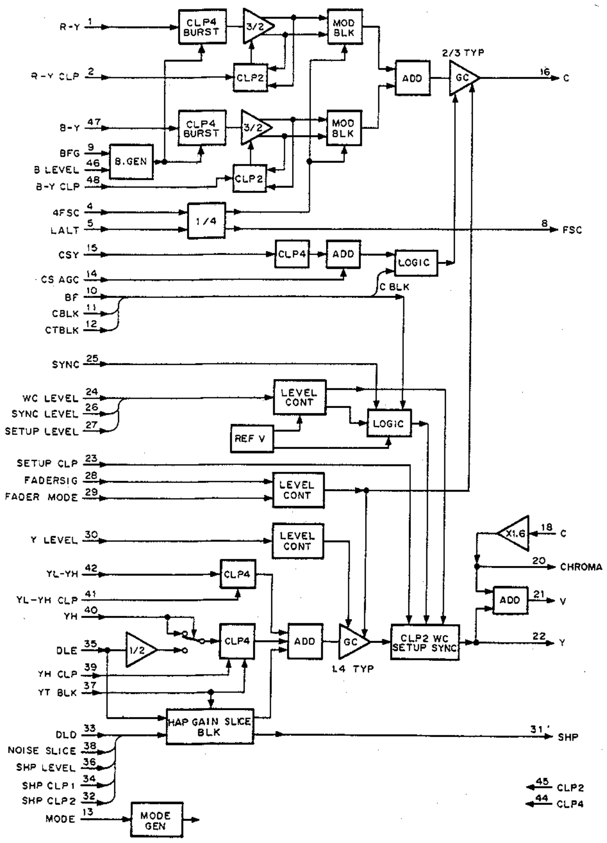
OTHER
BAL1, BAL2 ; MODULATOR BALANCE ADJUSTMENT
D. C ; DARK CLIP ADJUSTMENT
DECOUP ; DECOUPLING CAPACITOR
HOLD CAP ; HOLD CAPACITOR
LIM DE ; LIMITER DECOUPLING CAPACITOR
TEMP COMP ; TEMPERATURE COMPENSATION
W. C ; WHITE CLIP ADJUSTMENT
AMP1 DC ; AMP1 CLAMP DC

CXA1592R (SONY) FLAT PACKAGE
ENCODER FOR CCD COLOR CAMERA
- TOP VIEW -


36 35 34 33 32 31 30 29 28 27 26 25
37 38 39 40 41 42 43 44 45 46 47 48
24 23 22 21 20 19 18 17 16 15 14 13
1 2 3 4 5 6 7 8 9 10 11 12
A-GND
D-GND
A-Vcc (+5V)
D-Vcc (+5V)
NC
NC

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I	R-Y	13	I	MODE	25	I	SYNC	37	I	YTBLK
2	I	R-Y CLP	14	I	CS AGC	26	I	SYNC LEVEL	38	I	NOISE SLICE
3	–	D-Vcc(+5V)	15	I	CSY	27	I	SETUP LEVEL	39	I	YH CLP
4	I	4FSC	16	O	C	28	I	FADER SIG	40	I	YH
5	I	LALT	17	–	A-Vcc(+5V)	29	I	FADER MODE	41	I	YL-YH CLP
6	–	NC	18	I	C	30	I	Y LEVEL	42	I	YL-YH
7	–	NC	19	–	D-GND	31	O	SHP	43	–	A-GND
8	O	FSC	20	O	CHROMA	32	I	SHP CLP2	44	I	CLP4
9	I	BFG	21	O	V	33	I	DLD	45	I	CLP2
10	I	BF	22	O	Y	34	I	SHP CLP1	46	I	B LEVEL
11	I	CBLK	23	I	SETUP CLP	35	I	DLE	47	I	B-Y
12	I	CTBLK	24	I	WC LEVEL	36	I	SHP LEVEL	48	I	B-Y CLP


9 BFG
46 B LEVEL
15 CS Y
14 CS AGC
10 BF
11 CBLK
12 CTBLK
45 CLP2
44 CLP4
1 R-Y
47 B-Y
2 R-Y CLP
48 B-Y CLP
4 4FSC
5 LALT
40 YH
42 YL-YH
35 DLE
41 YL-YH CLP
39 YH CLP
37 YT BLK
33 DLD
38 NOISE SLICE
36 SHP LEVEL
34 SHP CLP1
32 SHP CLP2
18 C
13 MODE
C 16
FSC 8
Y 22
SHP 31
CHROMA 20
V 21
30 Y LEVEL
28 FADER SIG
29 FADER MODE
23 SETUP CLP
24 WC LEVEL
26 SYNC LEVEL
27 SETUP LEVEL
25 SYNC

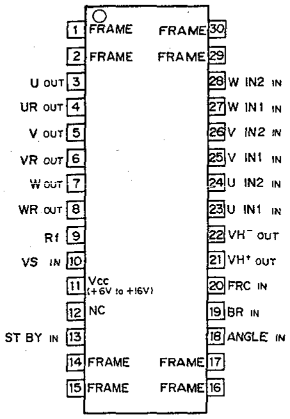

R-Y 1
R-Y CLP 2
B-Y 47
BFG 9
B LEVEL 46
B-Y CLP 48
4FSC 4
LALT 5
CSY 15
CS AGC 14
BF 10
CBLK 11
CTBLK 12
SYNC 25
WC LEVEL 24
SYNC LEVEL 26
SETUP LEVEL 27
SETUP CLP 23
FADERSIG 28
FADER MODE 29
Y LEVEL 30
YL-YH 42
YL-YH CLP 41
YH 40
DLE 35
YH CLP 39
YT BLK 37
DLD 33
NOISE SLICE 38
SHP LEVEL 36
SHP CLP1 34
SHP CLP2 32
MODE 13
CLP4 BURST
3/2
MOD BLK
CLP2
B.GEN
ADD
GC
2/3 TYP
1/4
CLP4
LOGIC
C BLK
LEVEL CONT
REF V
X1.6
1/2
L4 TYP
CLP2 WC SETUP SYNC
HAP GAIN SLICE BLK
MODE GEN
16 C
8 FSC
18 C
20 CHROMA
21 V
22 Y
31 SHP
45 CLP2
44 CLP4

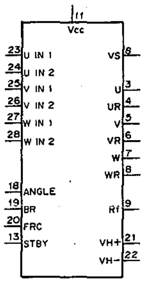
INPUT
4FSC ; 4FSC USED TO MAKE UP THE SUB CARRIER
B LEVEL ; CONTROLS THE BURST LEVEL
BF ; BURST FLAG PULSE
BFG ; INSERTS PULSE SLIGHT LARGER THAN BF ON BOTH ENDS
C ; INPUT FOR CHROMA SIGNAL PASSED THROUGH BPF
CBLK ; COMPOSITE BLANKING PULSE
CLP2, 4 ; CLAMP2, 4 PULSE INPUT
CS AGC ; SUPPRESS CHROMA SIGNAL AT THE AGC GAIN CONTROL SIGNAL
CSY ; SUPPRESS CHROMA SIGNAL AT THE Y SIGNAL
CTBLK ; CHROMA TITLER PULSE
DLD ; CONNECTS THE DELAY LINE DRIVE SIDE OF THE APERTURE SIGNAL
DLE ; CONNECTS THE DELAY LINE END SIDE OF THE APERTURE SIGNAL
FADER MODE ; BLACK FADER AND WHITE FADER MODE SELECT
FADER SIG ; CONTROLS THE SIGNAL SUPPRESS LEVEL DURING BLACK FADER, CONTROLS THE SIGNAL SUPPRESS LEVEL DURING WHITE FADER AND AT THE SAME TIME CONTROLS THE SET UP LEVEL
LALT ; INPUT FOR LINE ALTERNATE SIGNAL DURING PAL MODE
MODE ; SELECTS NTSC, PAL OR NTSC × 2, PAL × 2 MODES
NOISE SLICE ; CONTROLS THE SLICE LEVEL OF THE APERTURE SIGNAL
R-Y, B-Y ; R-Y, B-Y SIGNAL
R-Y, B-Y CLP ; CONNECTING THE CAPACITOR FOR R-Y, B-Y MODULATOR CLAMP
SETUP CLP ; CONNECTING FOR THE WHITE CLIP CLAMP CAPACITOR
SETUP LEVEL ; SET UP LEVEL CONTROL
SHP CLP1, 2 ; CONNECTS THE CLAMP CAPACITOR USED FOR THE SLICE OF THE APERTURE SIGNAL
SHP LEVEL ; CONTROL OF THE APERTURE SIGNAL LEVEL
SYNC ; SYNC PULSE
SYNC LEVEL ; SYNC LEVEL CONTROL
WC LEVEL ; WHITE CLIP LEVEL CONTROL
Y LEVEL ; Y SIGNAL LEVEL CONTROL
YH ; YH SIGNAL
YH CLP ; CONNECTS THE CAPACITOR FOR YH INPUT CLAMP
YL-YH ; V APERTURE SIGNALS, TITLER SIGNALS AND YL-YH SIGNALS
YL-YH CLP ; CONNECTS THE CAPACITOR FOR YL-YH INPUT CLAMP
YTBLK ; Y TITLER PULSE

OUTPUT
C ; CHROMA SIGNAL OUTPUT
CHROMA ; CHROMA SIGNAL OUTPUT WHEN USED FOR Y/C SEPARATION OUTPUT
FSC ; OUTPUTS A SUB CARRIER WITH THE SAME PHASE AS B-Y
SHP ; APERTURE SIGNAL
V ; COMPOSITE VIDEO SIGNAL
Y ; Y SIGNAL OUTPUT WHEN USED FOR Y/C SEPARATION OUTPUT

CXA8004M (SONY) FLAT PACKAGE

3DD MOTOR DRIVER
– TOP VIEW –


1 FRAME
2 FRAME
U OUT 3
UR OUT 4
V OUT 5
VR OUT 6
W OUT 7
WR OUT 8
Rf 9
VS IN 10
11 Vcc (+6V to +16V)
12 NC
ST BY IN 13
14 FRAME
15 FRAME
FRAME 30
FRAME 29
28 W IN2 IN
27 W IN1 IN
26 V IN2 IN
25 V IN1 IN
24 U IN2 IN
23 U IN1 IN
22 VH⁻ OUT
21 VH⁺ OUT
20 FRC IN
19 BR IN
18 ANGLE IN
FRAME 17
FRAME 16


11
Vcc
23 U IN 1
24 U IN 2
25 V IN 1
26 V IN 2
27 W IN 1
28 W IN 2
18 ANGLE
19 BR
20 FRC
13 STBY
VS 8
U 3
UR 4
V 5
VR 6
W 7
WR 8
Rf 9
VH+ 21
VH− 22

INPUT

BR	; MOTOR BRAKE (H : STOP, L : PLAY)
FRC	; FWD/REV CONTROL (H : FWD, L : REV)
STBY	; STAND-BY (GND : POWER OFF)
U IN1, 2	; U PHASE INPUTS
V IN1, 2	; V PHASE INPUTS
Vs	; MOTOR INPUT VOLTAGE (Vs < Vcc)
W IN1, 2	; W PHASE INPUTS

OUTPUT

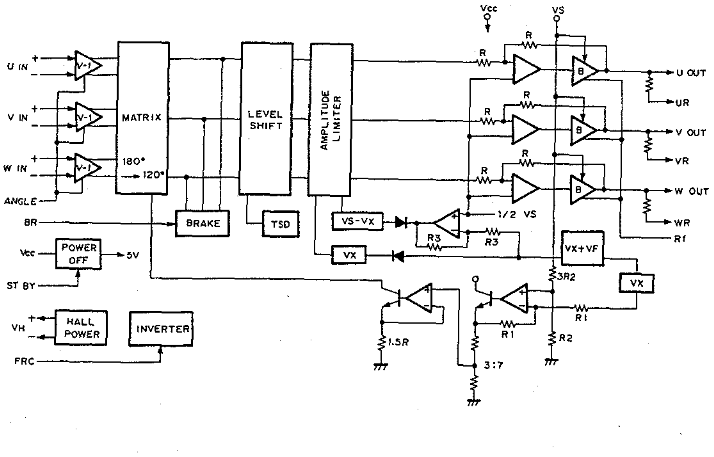
U OUT	; U PHASE OUTPUT
UR OUT	; U PHASE 2Ω RESISTOR OUTPUT
V OUT	; V PHASE OUTPUT
VR OUT	; V PHASE 2Ω RESISTOR OUTPUT
V_H^+, V_H^-	; HALL BIAS CURRENT
W OUT	; W PHASE OUTPUT
WR OUT	; W PHASE 2Ω RESISTOR OUTPUT

OTHER

Rf	; GND FOR OUTPUT TRANSISTOR

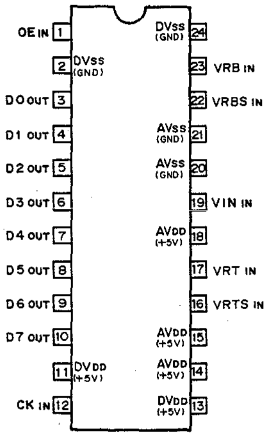
INPUT			FRC	FUNCTION
U	V	W		
H	H	L	0	W→V PHASE
			1	V→W PHASE
H	L	L	0	W→U PHASE
			1	U→W PHASE
L	L	H	0	V→W PHASE
			1	W→V PHASE
L	H	L	0	U→V PHASE
			1	V→U PHASE
H	L	H	0	V→U PHASE
			1	U→V PHASE
L	H	H	0	U→W PHASE
			1	W→U PHASE

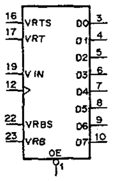
H : HIGH LEVEL
L : LOW LEVEL


U IN
V IN
W IN
ANGLE
BR
Vcc
ST BY
VH
FRC
V-I
MATRIX
180°
120°
LEVEL SHIFT
AMPLITUDE LIMITER
BRAKE
TSD
POWER OFF
5V
HALL POWER
INVERTER
VS-VX
VX
1/2 VS
R3
VX+VF
VX
3R2
R1
R2
1.5R
3:7
Vcc
VS
R
B
U OUT
UR
V OUT
VR
W OUT
WR
Rf

CXD1175AM (SONY) FLAT PACKAGE

C-MOS 8-BIT 20MSPS VIDEO A/D CONVERTER
– TOP VIEW –

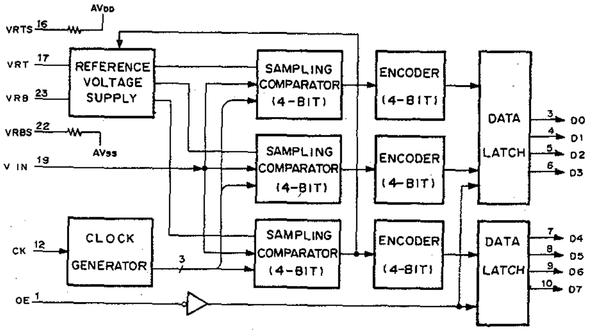

OE IN 1
2 DVss (GND)
D0 OUT 3
D1 OUT 4
D2 OUT 5
D3 OUT 6
D4 OUT 7
D5 OUT 8
D6 OUT 9
D7 OUT 10
11 DVDD (+5V)
CK IN 12
DVss (GND) 24
23 VRB IN
22 VRBS IN
AVss (GND) 21
AVss (GND) 20
19 VIN IN
AVDD (+5V) 18
17 VRT IN
16 VRTS IN
AVDD (+5V) 15
AVDD (+5V) 14
DVDD (+5V) 13


16 VRTS
17 VRT
19 VIN
12
22 VRBS
23 VRB
OE
1
D0 3
D1 4
D2 5
D3 6
D4 7
D5 8
D6 9
D7 10

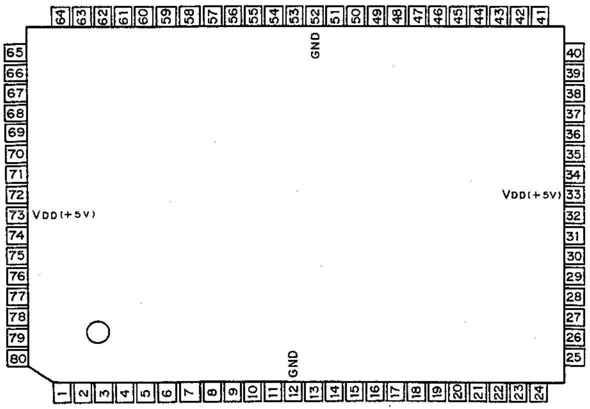
AV_{DD}	: ANALOG POWER SUPPLY
AV_{SS}	: ANALOG GROUND
CK	: CLOCK INPUT
D0 – 7	: DIGITAL DATA OUTPUTS (LSB to MSB)
DV_{DD}	: DIGITAL POWER SUPPLY
DV_{SS}	: DIGITAL GROUND
OE	: OUTPUT ENABLE (OE = HIGH : HIGH IMPEDANCE)
VIN	: ANALOG VOLTAGE INPUT
VRB	: BOTTOM REFERENCE VOLTAGE INPUT
VRBS	: AS SHORT-CIRCUIT AT VRB, GENERATES + 0.6V
VRT	: TOP REFERENCE VOLTAGE INPUT
VRTS	: AS SHORT-CIRCUIT AT VRT, GENERATES + 2.6V

STEP	INPUT SIGNAL VOLTAGE	DATA OUTPUTS							
		D7	D6	D5	D4	D3	D2	D1	D0
0	0V (VRT)	1	1	1	1	1	1	1	1
1	0.01V	1	1	1	1	1	1	1	0
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
127	1.34V	1	0	0	0	0	0	0	0
128	1.35V	0	1	1	1	1	1	1	1
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
255	2.7V (VRB)	0	0	0	0	0	0	0	0

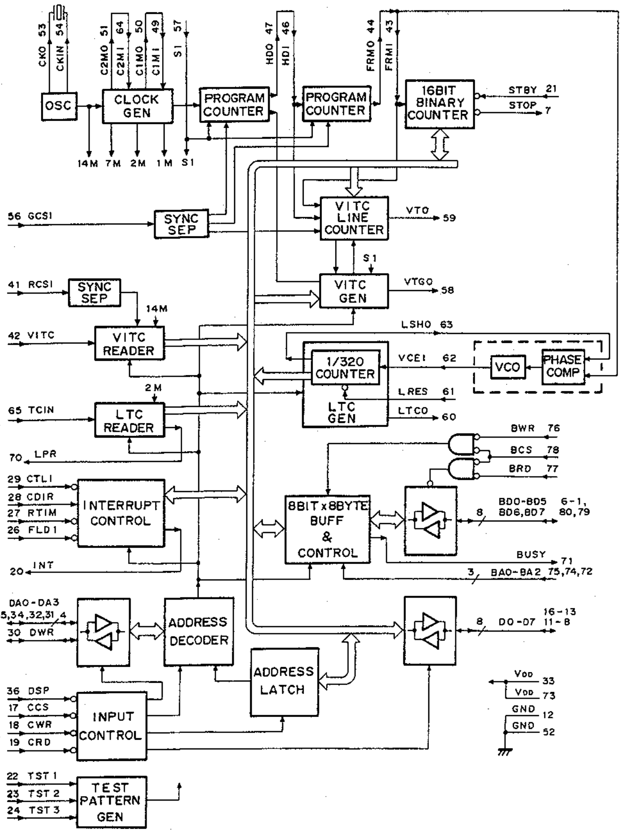
0 : LOW LEVEL
1 : HIGH LEVEL


AVDD
VRTS 16
VRT 17
VRB 23
VRBS 22
AVss
V IN 19
CK 12
OE 1
REFERENCE VOLTAGE SUPPLY
CLOCK GENERATOR
3
SAMPLING COMPARATOR (4-BIT)
SAMPLING COMPARATOR (4-BIT)
SAMPLING COMPARATOR (4-BIT)
ENCODER (4-BIT)
ENCODER (4-BIT)
ENCODER (4-BIT)
DATA LATCH
DATA LATCH
3 D0
4 D1
5 D2
6 D3
7 D4
8 D5
9 D6
10 D7

CXD1132Q (SONY) FLAT PACKAGE
C-MOS TIME CODE GENERATOR/READER
– TOP VIEW –


64
63
62
61
60
59
58
57
56
55
54
53
52
51
50
49
48
47
46
45
44
43
42
41
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
40
39
38
37
36
35
34
33
32
31
30
29
28
27
26
25
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
GND
GND
VDD(+5V)
VDD(+5V)

PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL
1	I/O	DB5	17	I	CCS	33	–	V_{DD}	49	I	C1MI	65	I	TCIN
2	I/O	DB4	18	I	CWR	34	I/O	DA1	50	O	C1MO	66	O	DCLK
3	I/O	DB3	19	I	CRD	35	I/O	DA0	51	O	C2MO	67	O	DATA
4	I/O	DB2	20	O	INT	36	I	DSP	52	–	GND	68	O	RFLD
5	I/O	DB1	21	I	STBY	37	O	DTSE	53	O	CKO	69	O	RDSY
6	I/O	DB0	22	I	TST1	38	O	VRCK	54	I	CKIN	70	O	LRP
7	O	STOP	23	I	TST2	39	I	SLLM	55	I	SLCK	71	O	BUSY
8	I/O	D7	24	I	TST3	40	O	RVDO	56	I	GCSI	72	I	BA2
9	I/O	D6	25	I	PON	41	I	RCSI	57	I	S1	73	–	V_{DD}
10	I/O	D5	26	I	FLD1	42	I	VITC	58	O	VTGO	74	I	BA1
11	I/O	D4	27	I	RTIM	43	I	FRMI	59	O	VTO	75	I	BA0
12	–	GND	28	I	CDIR	44	O	FRMO	60	O	LTCO	76	I	BWR
13	I/O	D3	29	I	CTLI	45	O	GLSY	61	I	LRES	77	I	BRD
14	I/O	D2	30	I/O	DWR	46	I	HDI	62	I	VCEI	78	I	BCS
15	I/O	D1	31	I/O	DA3	47	O	HDO	63	O	LSHO	79	I/O	BD7
16	I/O	D0	32	I/O	DA2	48	O	VDO	64	I	C2MI	80	I/O	BD6


CKO 53
CKIN 54
C2MO 51
C2MI 64
C1MO 50
C1MI 49
S1 57
HDO 47
HDI 46
FRMO 44
FRMI 43
OSC
CLOCK GEN
PROGRAM COUNTER
PROGRAM COUNTER
16BIT BINARY COUNTER
STBY 21
STOP 7
14M
7M
2M
1M
S1
56 GCSI
SYNC SEP
VITC LINE COUNTER
VTO 59
S1
41 RCSI
SYNC SEP
14M
VITC GEN
VTGO 58
42 VITC
VITC READER
LSHO 63
1/320 COUNTER
VCEI 62
VCO
PHASE COMP
2M
LRES 61
65 TCIN
LTC READER
LTC GEN
LTCO 60
70 LPR
BWR 76
BCS 78
BRD 77
29 CTLI
28 CDIR
27 RTIM
26 FLD1
INTERRUPT CONTROL
8BIT x 8BYTE BUFF & CONTROL
8
BD0-BD5 6-1,
BD6,BD7 80,79
BUSY 71
20 INT
3
BA0-BA2 75,74,72
DA0-DA3
35,34,32,31 4
30 DWR
ADDRESS DECODER
8
D0-D7
16-13
11-8
ADDRESS LATCH
VDD 33
VDD 73
GND 12
GND 52
36 DSP
17 CCS
18 CWR
19 CRD
INPUT CONTROL
22 TST1
23 TST2
24 TST3
TEST PATTERN GEN

SIGNAL DESCRIPTION

BA0-BA2	B ADDRESS INPUTS
BCS	B CHIP ENABLE INPUT ("L":ENABLE)
BD0-BD7	B DATA I/O
BRD	B READ INPUT ("L":READ)
BUSY	B BUSY OUTPUT
BWR	B WRITE INPUT ("L":WRITE)
C1MI	SYSTEM CLOCK INPUT
C1MO	CLOCK 1 OUTPUT (CKIN X 1/16)
C2MI	LTC READ CLOCK INPUT
C2MO	CLOCK 2 OUTPUT (CKIN X 1/8)
CCS	C CHIP ENABLE INPUT ("L":ENABLE)(when DSP is low) ADDRESS LATCH ENABLE INPUT ("L":ENABLE)(when DSP is high)
CDIR	CTL DIRECTION INPUT
CKIN	SYSTEM CLOCK INPUT

VIDEO SIGNAL FORMAT	CKIN
SMPTE 29.97HZ 525LINE	14.318MHZ
EBU 25HZ 625LINE	14.500MHZ

CKO	CLOCK OUTPUT
CRD	C READ INPUT ("L":READ)
CTLI	CTL SIGNAL INPUT
CWR	C WRITE INPUT ("L":WRITE)
D0-D7	DATA I/O (when DSP is low)/ ADDRESS INPUTS
DA0-DA3	E ADDRESS INPUTS (when DSP is high) D ADDRESS OUTPUT (when DSP is low)
DATA	DEMODULATED SERIAL DATA OUTPUT
DCLK	DEMODULATED CLOCK OUTPUT
DSP	DISPLAY BUS SELECT INPUT DSP controls CCS,DA0-DA3 and DVR.
DTSE	VITC DATA SEARCH FLAG OUTPUT
DWR	WRITE ENABLE OUTPUT ("L":ENABLE)(when DSP is low) E ADDRESS 4 INPUT (when DSP is high)
EA4	ADDRESS BUS INPUT
FLD1	FIELD REFERENCE INPUT ("L":FILD 1)
FRMI	FRAME SIGNAL INPUT
FRMO	FRAME SIGNAL OUTPUT
GCSI	COMPOSITE SYNC INPUT
GLSY	LOST SYNC FLAG OUTPUT
HDI	HORIZONTAL SYNC INPUT
HDO	HORIZONTAL SYNC OUTPUT
INT	ITERRUPT REQUEST OUTPUT
LPR	LTC READ REQUEST OUTPUT
LRES	LTC COUNTER RESET INPUT ("L":RESET)
LSHO	SYNCHRONOUS SIGNAL OUTPUT
LTCO	LTC SIGNAL OUTPUT
PON	SYSTEM RESET INPUT ("L":PON)
RCSI	COMPOSITE SYNC INPUT
RDSY	READ SYNC WORD DATA OUTPUT
RESS	RESET INPUT ("L":RTIM)
RFLD	FIELD DATA OUTPUT
RTIM	TIME ADDRESS RESET INPUT ("L":RESET)
RVDO	VITC READ DATA OUTPUT

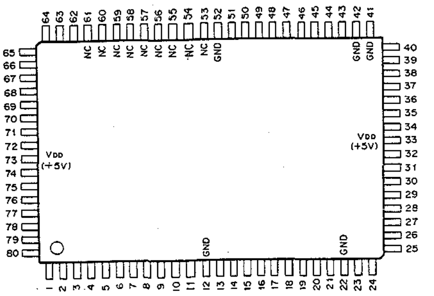
S1	SIGNAL FORMAT SELECT INPUT "H":NTSC/PAL-M 29.94HZ 525LINE "L":PAL/SECAM 25Hz 625LINE
SLCK	SELECT CLOCK INPUT

SLCK	"L"		"H"	
CKIN	14.318MHZ	14.5MHZ	7.159MHZ	7.25MHZ
SPEC	SMPTE	EBU	SMPTE	EBU

SLLM	READ SIZE SELECT INPUT
STBY	STANDBY READ FLAG INPUT
STOP	STOP OUTPUT ("L":STOP)
TCIN	LONGITUDINAL TIME AND CONTROL CODE INPUT
TST1-TST3	TEST INPUT
VCEI	LTC CLOCK INPUT
VDO	HORIZONTAL SYNC DRIVE OUTPUT
VITC	VITC SIGNAL INPUT
VTGO	VITC GATE SIGNAL OUTPUT
VTO	VITC SIGNAL OUTPUT ("H":VITC)

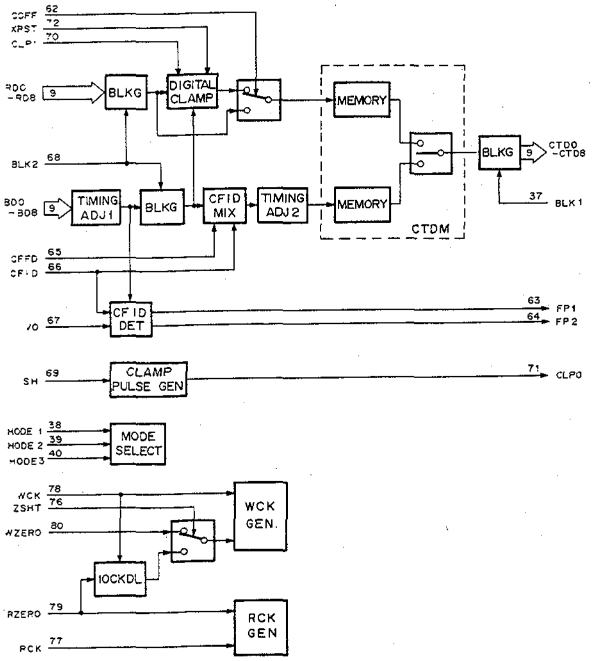
CXD1151Q (SONY)

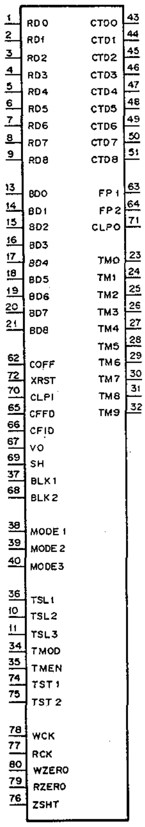
C-MOS VIDEO SIGNAL PROCESSOR FOR BETACAM
- TOP VIEW -


64 63 62 61 60 59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41
NC NC NC NC NC NC NC NC NC GND
GND
40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25
65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80
VDD (+5V)
VDD (+5V)
GND
GND
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

PIN ASSIGNMENT

Pin NO.	I/O	SIGNAL	Pin NO.	I/O	SIGNAL	Pin NO.	I/O	SIGNAL	Pin NO.	I/O	SIGNAL
1	I	RD0	21	I	BD8	41		NC	61		NC
2	I	RD1	22	—	Vss (GND)	42	—	Vss (GND)	62	I	COFF
3	I	RD2	23	O	TM0	43	O	CTD0	63	I	FP1
4	I	RD3	24	O	TM1	44	O	CTD1	64	I	FP2
5	I	RD4	25	O	TM2	45	O	CTD2	65	I	CFFD
6	I	RD5	26	O	TM3	46	O	CTD3	66	I	CFID
7	I	RD6	27	O	TM4	47	O	CTD4	67	I	VO
8	I	RD7	28	O	TM5	48	O	CTD5	68	I	BLK2
9	I	RD8	29	O	TM6	49	O	CTD6	69	I	SH
10	I	TSL2	30	O	TM7	50	O	CTD7	70	I	CLPI
11	I	TSL3	31	O	TM8	51	O	CTD8	71	O	CLPO
12	—	Vss (GND)	32	O	TM9	52	—	Vss (GND)	72	I	XRST
13	I	BD0	33	I	VDD (+5V)	53		NC	73	I	VDD (+5V)
14	I	BD1	34	I	TMOD	54		NC	74	I	TST1
15	I	BD2	35	I	TMEN	55		NC	75	I	TST2
16	I	BD3	36	I	TSL1	56		NC	76	I	ZSHT
17	I	BD4	37	I	BLK1	57		NC	77	I	RCK
18	I	BD5	38	I	MODE1	58		NC	78	I	WCK
19	I	BD6	39	I	MODE2	59		NC	79	I	RZERO
20	I	BD7	40	I	MODE3	60		NC	80	I	WZERO


COFF 62
XRST 72
CLPI 70
RD0 -RD8 9
BLKG
DIGITAL CLAMP
MEMORY
MEMORY
CTDM
BLKG
9
CTD0 -CTD8
BLK2 68
37 BLK1
BD0 -BD8 9
TIMING ADJ1
BLKG
CFID MIX
TIMING ADJ 2
CFFD 65
CFID 66
VO 67
CF ID DET
63 FP1
64 FP2
SH 69
CLAMP PULSE GEN
71 CLPO
MODE 1 38
MODE 2 39
MODE3 40
MODE SELECT
WCK 78
ZSHT 76
WZERO 80
WCK GEN.
10CKDL
RZERO 79
RCK 77
RCK GEN


1 RD0
2 RD1
3 RD2
4 RD3
5 RD4
6 RD5
7 RD6
8 RD7
9 RD8
13 BD0
14 BD1
15 BD2
16 BD3
17 BD4
18 BD5
19 BD6
20 BD7
21 BD8
62 COFF
72 XRST
70 CLPI
65 CFFD
66 CFID
67 VO
69 SH
37 BLK1
68 BLK2
38 MODE 1
39 MODE 2
40 MODE3
36 TSL1
10 TSL2
11 TSL3
34 TMOD
35 TMEN
74 TST1
75 TST 2
78 WCK
77 RCK
80 WZERO
79 RZERO
76 ZSHT
CTD0 43
CTD1 44
CTD2 45
CTD3 46
CTD4 47
CTD5 48
CTD6 49
CTD7 50
CTD8 51
FP1 63
FP2 64
CLPO 71
TM0 23
TM1 24
TM2 25
TM3 26
TM4 27
TM5 28
TM6 29
TM7 30
TM8 31
TM9 32

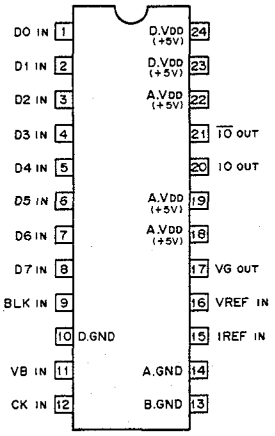
RD0-RD8 ; R-Y DATA INPUTS
BD0-BD8 ; B-Y DATA INPUTS
COFF ; DIGTAL CLAMP CIRCUIT CONTROL INPUT
XRST ; DIGTAL CLAMP CIRCUIT RESET PULSE INPUT
CLPI ; CLAMP PULSE INPUT FOR DIGITAL CLAMP
CFFD ; FIELD SIGNAL INPUT FOR COLOR FRAMING ID MIX
CFID ; PULSE INPUT FOR COLOR FRAMING ID MIX
VO ; COLOR FRAMING DETECT CIRCUIT RESET PULSE INPUT
SH ; TRIGGER INPUT FOR CLPO OUTPUT
BLK1, BLK2 ; BLKG PULSE INPUTS
TSL1 ; MEMORY SELECT INPUT IN TEST MODE
TSL2, TSL3 ; TEST INPUTS
TMOD ; TEST MODE CONTROL INPUT
TMEN ; MEMORY ADD CONTROL INPUT IN TEST MODE
TST1, TST2 ; DIGITAL CLAMP CIRCUIT TEST CONTROL INPUTS
WCK ; WRITE CLOCK INPUT ⎍
RCK ; READ CLOCK INPUT ⎍
WZERO ; WRITE ZERO INPUT ⊓
RZERO ; READ ZERO INPUT ⊓
ZSHT ; INTERNAL/EXTERNAL WZERO SELECT INPUT
CTD0-CTD8 ; CTDM DATA OUTPUTS
FP1, FP2 ; COLOR FRAMING DETECT PULSE OUTPUTS
CLPO ; CLAMP PULSE OUTPUT
TM0-TM9 ; DIGITAL CLAMP CIRCUIT TEST SIGNAL OUTPUTS
MODE1-MODE3; MODE SELECT INPUTS

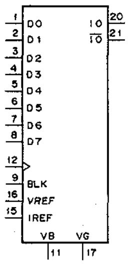
MODE1	1				1			
MODE2	1		0		1		0	
MODE3	1	0	1	0	1	0	1	0
nfH	910fH	858fH	909fH	X	908fH	864fH	1135fH	TCLR

O: LOW LEVEL 1: HIGH LEVEL

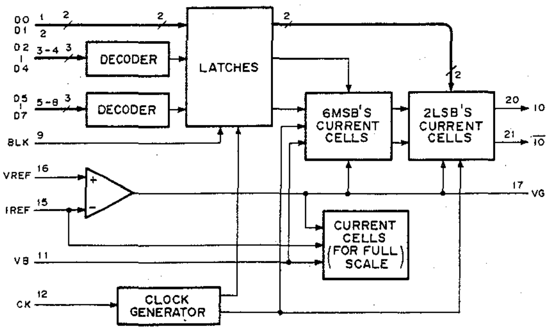
CXD1171M (SONY) FLAT PACKAGE

C-MOS 8-BIT D/A CONVERTER
- TOP VIEW -


D0 IN 1
D1 IN 2
D2 IN 3
D3 IN 4
D4 IN 5
D5 IN 6
D6 IN 7
D7 IN 8
BLK IN 9
10 D.GND
VB IN 11
CK IN 12
D.VDD (+5V) 24
D.VDD (+5V) 23
A.VDD (+5V) 22
21 $\overline{IO}$ OUT
20 IO OUT
A.VDD (+5V) 19
A.VDD (+5V) 18
17 VG OUT
16 VREF IN
15 IREF IN
A.GND 14
B.GND 13

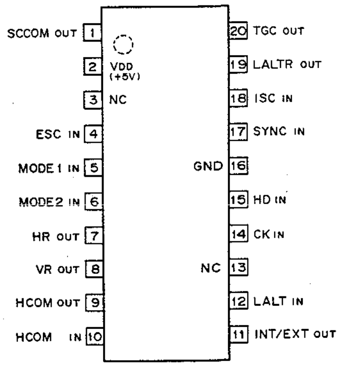

1 D0
2 D1
3 D2
4 D3
5 D4
6 D5
7 D6
8 D7
12
9 BLK
16 VREF
15 IREF
VB 11
VG 17
IO 20
$\overline{IO}$ 21

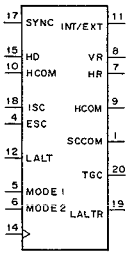
CK ; CLOCK INPUT
BLK ; BLANKING PULSE INPUT
D0 – 7 ; DIGITAL DATA INPUT
IO ; CURRENT OUTPUT
$\overline{IO}$; INVERT CURRENT OUTPUT
IREF ; CURRENT REFERENCE INPUT
VB, VG ; FOR CAPACITOR
VREF ; VOLTAGE REFERENCE INPUT


D0 D1 1 2 2 2
D2 | D4 3-4 3
DECODER
D5 | D7 5-8 3
DECODER
LATCHES
2
2
BLK 9
VREF 16
IREF 15
VB 11
CK 12
6MSB'S CURRENT CELLS
2LSB'S CURRENT CELLS
20 IO
21 $\overline{IO}$
17 VG
CURRENT CELLS (FOR FULL SCALE)
CLOCK GENERATOR

IC

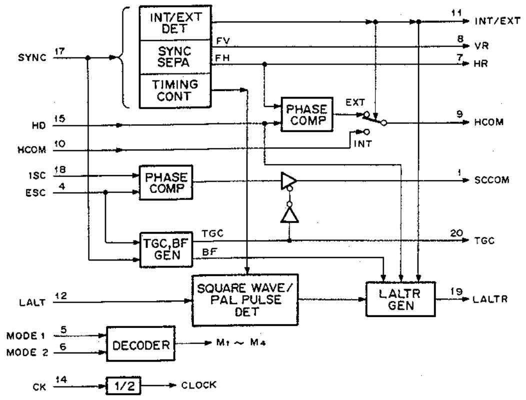
CXD1216M (SONY) FLAT PACKAGE
C-MOS GENLOCK DRIVER
– TOP VIEW –


SCCOM OUT 1
2 VDD (+5V)
3 NC
ESC IN 4
MODE1 IN 5
MODE2 IN 6
HR OUT 7
VR OUT 8
HCOM OUT 9
HCOM IN 10
20 TGC OUT
19 LALTR OUT
18 ISC IN
17 SYNC IN
GND 16
15 HD IN
14 CK IN
NC 13
12 LALT IN
11 INT/EXT OUT


17 SYNC
15 HD
10 HCOM
18 ISC
4 ESC
12 LALT
5 MODE 1
6 MODE 2
14
INT/EXT 11
VR 8
HR 7
HCOM 9
SCCOM 1
TGC 20
LALTR 19

INPUT		MODE	SYSTEM
MODE1	MODE2		
0	0	M1	PAL-VBS
1	0	M2	PALM-VBS
0	1	M3	PAL,SECAM-VS/SC/LALT
1	1	M4	NTSC-VBS,NTSC-VS/SC PALM-VS/SC/LALT

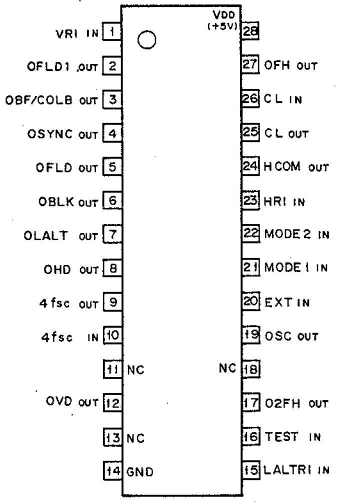
0 ; LOW LEVEL
1 ; HIGH LEVEL

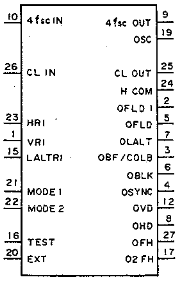

SYNC 17
HD 15
HCOM 10
ISC 18
ESC 4
LALT 12
MODE 1 5
MODE 2 6
CK 14
INT/EXT DET
SYNC SEPA
TIMING CONT
FV
FH
PHASE COMP
EXT
INT
PHASE COMP
TGC,BF GEN
TGC
BF
SQUARE WAVE/ PAL PULSE DET
LALTR GEN
DECODER
M1 ~ M4
1/2
CLOCK
11 INT/EXT
8 VR
7 HR
9 HCOM
1 SCCOM
20 TGC
19 LALTR

INPUT
CK ; 4fsc CLOCK INPUT
ESC ; SC/COLOR BURST
HCOM ; PHASE COMPARATE FROM CXD1217
HD ; H DRIVE FROM CXD1217
ISC ; SUBCARRIER FROM CXD1217
LALT ; LALT FROM REFERENCE SIGNAL GENERATOR
MODE1,2 ; SYSTEM SELECT
SYNC ; SYNC FROM REFERENCE SIGNAL GENERATOR

OUTPUT
HCOM ; PHASE COMPARATOR HR WITH HD
HR ; fH OF SYNC SEPARATE
INT/EXT ; INTERNAL/EXTERNAL SPECIFIED
LALTR ; LINE CHANGE RESET
SCCOM ; PHASE COMPARATOR ESC WITH ISC
TGC ; TRISTATE CONTROL
VR ; fV OF SYNC SEPARATE

CXD1217M (SONY) FLAT PACKAGE
C-MOS SYNC GENERATOR
– TOP VIEW –

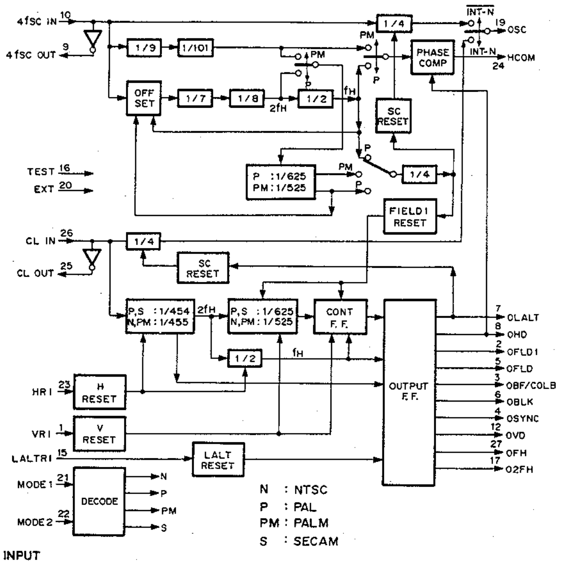

VRI IN 1
OFLD1 OUT 2
OBF/COLB OUT 3
OSYNC OUT 4
OFLD OUT 5
OBLK OUT 6
OLALT OUT 7
OHD OUT 8
4fsc OUT 9
4fsc IN 10
11 NC
OVD OUT 12
13 NC
14 GND
VDD (+5V) 28
27 OFH OUT
26 CL IN
25 CL OUT
24 HCOM OUT
23 HRI IN
22 MODE 2 IN
21 MODE 1 IN
20 EXT IN
19 OSC OUT
NC 18
17 O2FH OUT
16 TEST IN
15 LALTRI IN


10 4fsc IN
26 CL IN
23 HRI
1 VRI
15 LALTRI
21 MODE 1
22 MODE 2
16 TEST
20 EXT
4fsc OUT 9
OSC 19
CL OUT 25
H COM 24
OFLD 1 2
OFLD 5
OLALT 7
OBF/COLB 3
OBLK 6
OSYNC 4
OVD 12
OHD 8
OFH 27
O2FH 17

SYSTEM	4fsc	CLOCK
NTSC	$910f_H$	$910f_H$
PAL	$1135f_H+2f_V$	$908f_H$
PALM	$909f_H$	$910f_H$
SECAM	—	$908f_H$

INPUT		SYSTEM
MODE1	MODE2	
0	0	NTSC
0	1	SECAM
1	0	PALM
1	1	PAL

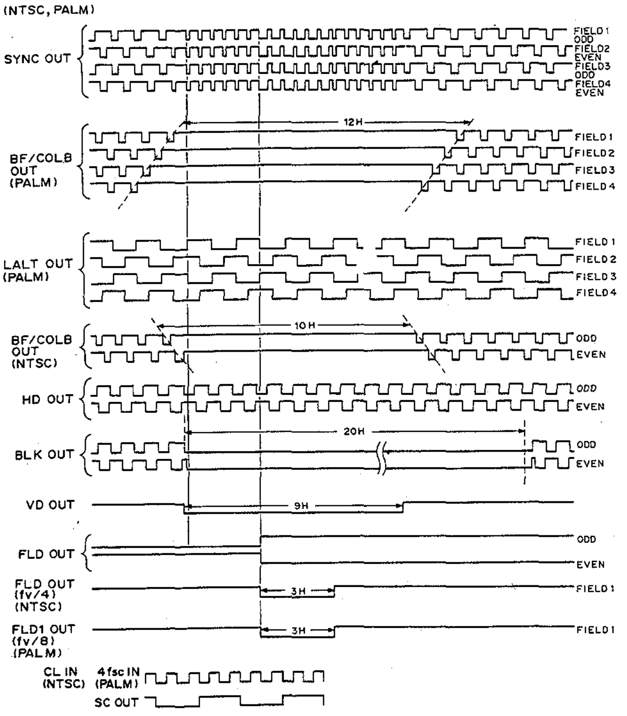
0 ; LOW LEVEL
1 ; HIGH LEVEL

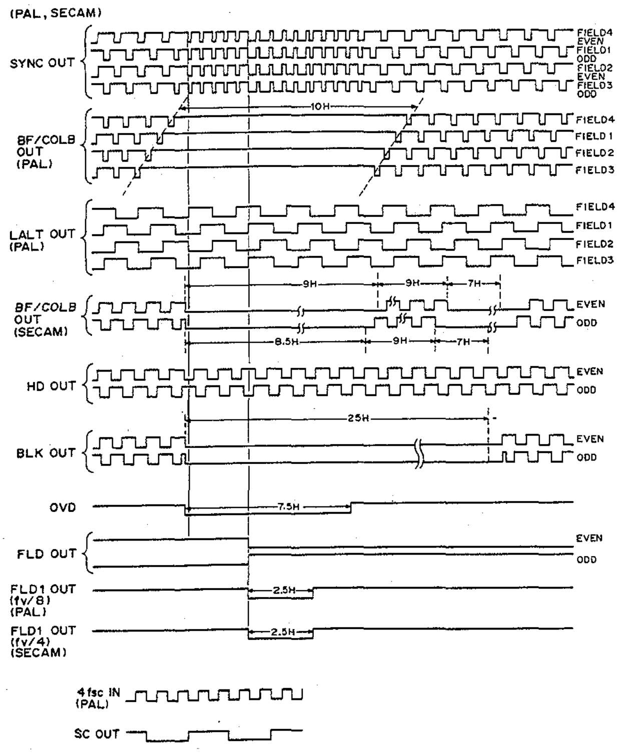

4fSC IN 10
4fSC OUT 9
1/9
1/101
OFF SET
1/7
1/8
2fH
1/2
fH
PM
P
1/4
INT-N
19 OSC
PHASE COMP
INT-N
HCOM 24
SC RESET
P :1/625
PM:1/525
1/4
FIELD1 RESET
TEST 16
EXT 20
CL IN 26
CL OUT 25
1/4
SC RESET
P,S :1/454
N,PM:1/455
2fH
P,S :1/625
N,PM:1/525
CONT F.F.
1/2
fH
OUTPUT F.F.
HRI 23
H RESET
VRI 1
V RESET
LALTRI 15
LALT RESET
MODE 1 21
MODE 2 22
DECODE
N
P
PM
S
7 OLALT
8 OHD
2 OFLD1
5 OFLD
3 OBF/COLB
6 OBLK
4 OSYNC
12 OVD
27 OFH
17 O2FH

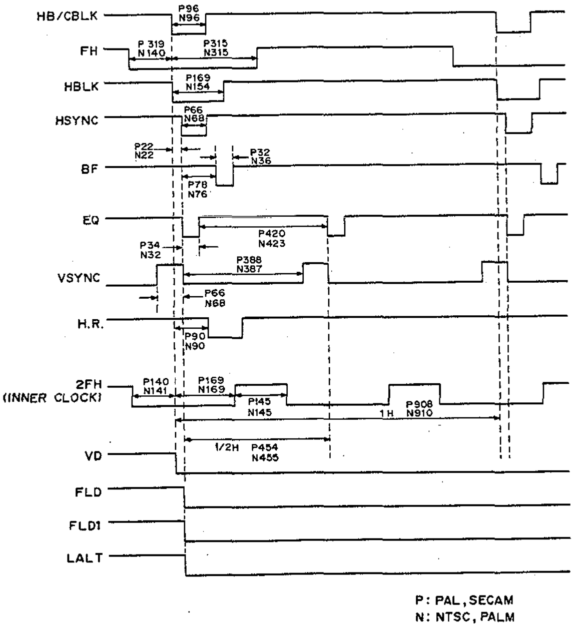
N : NTSC
P : PAL
PM : PALM
S : SECAM

INPUT
4fSC IN ; 4fSC INPUT
CL IN ; CLOCK INPUT
EXT ; SYNC MODE SELECT
(L ; INTERNAL/H ; EXTERNAL)
HRI ; H RESET
LALTRI ; LINE CHANGE RESET
MODE 1,2 ; SYSTEM SELECT
VRI ; V RESET

OUT PUT
4fSC OUT ; 4fSC OUTPUT
CL OUT ; CLOCK OUTPUT
HCOM ; PHASE COMPARATOR
O2fH ; 2fH OUTPUT
OBF/COLB : BURST FLAG/COLOR BLANKING
OBLK ; COMPOSITE BLANKING
OFH ; H FREQUENCE
OFLD ; EVEN, ODD
OFLD1 ; FIELD1
OHD ; H DRIVE
OLALT ; LINE CHANGE
OSC ; SUBCARRIER
OSYNC ; COMPOSITE SYNC
OVD ; V DRIVE


(NTSC, PALM)
SYNC OUT
FIELD1 ODD
FIELD2 EVEN
FIELD3 ODD
FIELD4 EVEN
12H
BF/COLB OUT (PALM)
FIELD1
FIELD2
FIELD3
FIELD4
LALT OUT (PALM)
10H
BF/COLB OUT (NTSC)
ODD
EVEN
HD OUT
20H
BLK OUT
VD OUT
9H
FLD OUT
FLD OUT (fv/4) (NTSC)
3H
FLD1 OUT (fv/8) (PALM)
CL IN (NTSC)
4fsc IN (PALM)
SC OUT

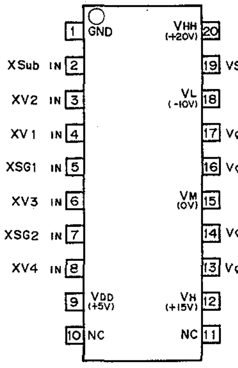

(PAL, SECAM)
SYNC OUT
FIELD4 EVEN
FIELD1 ODD
FIELD2 EVEN
FIELD3 ODD
10H
BF/COLB OUT (PAL)
LALT OUT (PAL)
9H
7H
BF/COLB OUT (SECAM)
8.5H
HD OUT
25H
BLK OUT
OVD
7.5H
FLD OUT
FLD1 OUT (fv/8) (PAL)
2.5H
FLD1 OUT (fv/4) (SECAM)
4fsc IN (PAL)
SC OUT

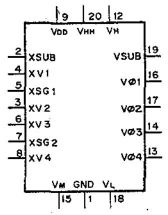

HB/CBLK
P96 N96
FH
P319 N140
P315 N315
HBLK
P169 N154
HSYNC
P66 N68
P22 N22
P32 N36
BF
P78 N76
EQ
P420 N423
P34 N32
P388 N387
VSYNC
P66 N68
H.R.
P90 N90
2FH (INNER CLOCK)
P140 N141
P169 N169
P145 N145
1H
P908 N910
1/2H
P454 N455
VD
FLD
FLD1
LALT
P: PAL, SECAM
N: NTSC, PALM

CXD1250M (SONY) FLAT PACKAGE

C-MOS VERTICAL CLOCK DRIVER FOR CCD

– TOP VIEW –


1 GND
VHH (+20V) 20
XSub IN 2
19 VSub OUT
XV2 IN 3
VL (-10V) 18
XV1 IN 4
17 VØ2 OUT
XSG1 IN 5
16 VØ1 OUT
XV3 IN 6
VM (0V) 15
XSG2 IN 7
14 VØ3 OUT
XV4 IN 8
13 VØ4 OUT
9 VDD (+5V)
VH (+15V) 12
10 NC
NC 11

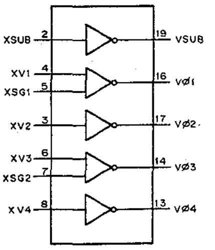

9
20
12
VDD
VHH
VH
2 XSUB
VSUB 19
4 XV1
VØ1 16
5 XSG1
3 XV2
VØ2 17
6 XV3
VØ3 14
7 XSG2
8 XV4
VØ4 13
VM
GND
VL
15
1
18

INPUT

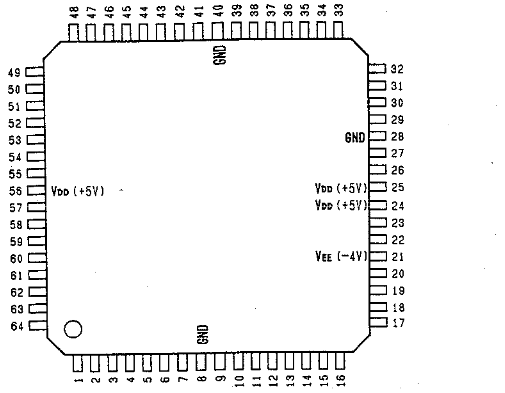
XSG1, XSG2	; SENSOR GATE PULSE INPUT
XSUB	; CCD ELECTRIC CHARGE SWEEPING AWAY PULSE INPUT
XV1-XV4	; VERTICAL REGISTER TRANSMISSION CLOCK INPUT

OUTPUT

VSUB	; CCD ELECTRIC CHARGE SWEEPING AWAY PULSE OUTPUT
V φ 1-V φ 4	; VERTICAL REGISTER TRANSMISSION CLOCK OUTPUT

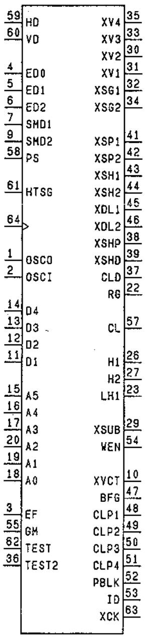

XSUB 2
19 VSUB
XV1 4
XSG1 5
16 VØ1
XV2 3
17 VØ2
XV3 6
XSG2 7
14 VØ3
XV4 8
13 VØ4

CXD1256AR (SONY) FLAT PACKAGE
TIMING GENERATOR FOR CCD CAMERA
– TOP VIEW –


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48
49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64
GND
GND
GND
VDD (+5V)
VDD (+5V)
VDD (+5V)
VEE (−4V)

(VDD =+5V)
(VEE =−4V)

Pin No.	I/O	SYMBOL	Pin No.	I/O	SYMBOL	Pin No.	I/O	SYMBOL	Pin No.	I/O	SYMBOL
1	O	OSCO	17	O	A3	33	O	XV3	49	I/O	CLP2
2	I	OSCI	18	O	A0	34	O	XSG2	50	I/O	CLP3
3	I	EF	19	O	A1	35	O	XV4	51	O	CLP4
4	I	ED0	20	O	A2	36	I	TEST2	52	O	PBLK
5	I	ED1	21	–	VEE	37	O	CLD	53	O	ID
6	I	ED2	22	O	RG	38	O	XSHP	54	O	WEN
7	I	SMD1	23	–	LH1	39	O	XSHD	55	I	GM
8	–	GND	24	–	VDD	40	–	GND	56	–	VDD
9	I	SMD2	25	–	VDD	41	O	XSP1	57	O	CL
10	O	XVCT	26	O	H1	42	O	XSP2	58	I	PS
11	I	D1	27	O	H2	43	O	XSH1	59	I	HD
12	I	D2	28	–	GND	44	O	XSH2	60	I	VD
13	I	D3	29	O	XSUB	45	O	XDL1	61	I	HTSG
14	I	D4	30	O	XV2	46	O	XDL2	62	I	TEST
15	O	A5	31	O	XV1	47	O	BFG	63	O	XCK
16	O	A4	32	O	XSG1	48	O	CLP1	64	I	CK


59 HD
60 VD
4 ED0
5 ED1
6 ED2
7 SMD1
9 SMD2
58 PS
61 HTSG
64
1 OSCO
2 OSCI
14 D4
13 D3
12 D2
11 D1
15 A5
16 A4
17 A3
20 A2
19 A1
18 A0
3 EF
55 GM
62 TEST
36 TEST2
XV4 35
XV3 33
XV2 30
XV1 31
XSG1 32
XSG2 34
XSP1 41
XSP2 42
XSH1 43
XSH2 44
XDL1 45
XDL2 46
XSHP 38
XSHD 39
CLD 37
RG 22
CL 57
H1 26
H2 27
LH1 23
XSUB 29
WEN 54
XVCT 10
BFG 47
CLP1 48
CLP2 49
CLP3 50
CLP4 51
PBLK 52
ID 53
XCK 63

INPUT

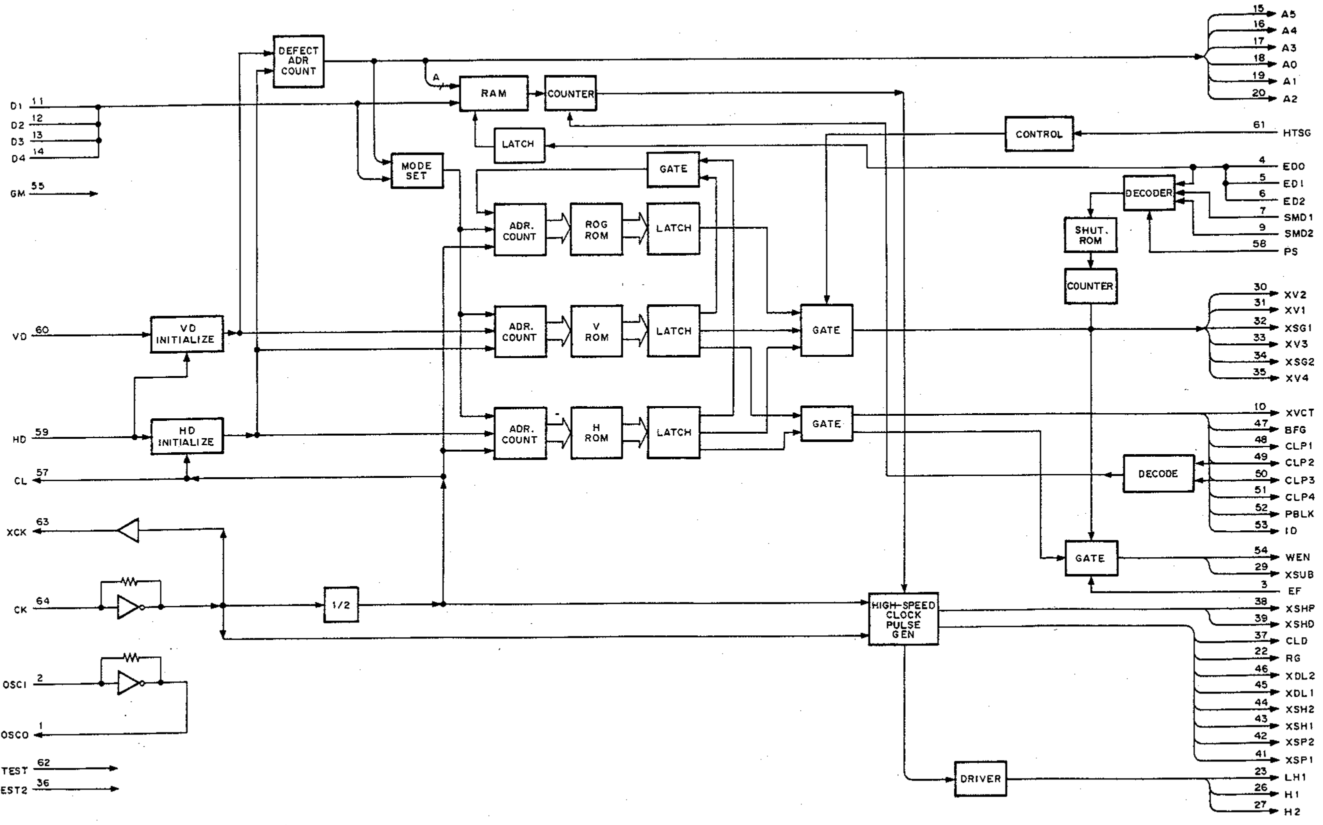
CK ; 8fsc CLOCK
D1 ; WHEN EXTERNAL ROM IS USED, DATA INPUT.
WHEN NOT USED, L ; NO ERROR COMPENSATION
D2 ; WHEN EXTERNAL ROM IS USED, DATA INPUT
WHEN NOT USED, L ; COLOR H ; B/W
D3 ; WHEN EXTERNAL ROM IS USED, DATA INPUT.
WHEN NOT USED, FIXED TO LOW
D4 ; WHEN EXTERNAL ROM IS USED, DATA INPUT.
WHEN NOT USED, L ; NTSC H ; PAL
ED0 ; SHUTTER SPEED SET. WHEN SERIAL MODE, STROBE INPUT.
ED1 ; SHUTTER SPEED SET. WHEN SERIAL MODE, CLOCK INPUT.
ED2 ; SHUTTER SPEED SET. WHEN SERIAL MODE, DATA INPUT.
EF ; DATA INPUT METHOD CHANGE FOR ERROR COMPENSATION
H ; EXTERNAL ROM USED
L ; SERIAL INPUT FROM MICROPROCESSOR
GM ; L ; FOR ANALOG SIGNAL, H ; FOR DIGITAL SIGNAL
HD ; HORIZONTAL DRIVE
HTSG ; XSG1, XSG2 CONTROL
H ; XSG1 AND 2 GENERATED
L ; XSG1 AND 2 STOPPED
OSCI ; INVERTER INPUT FOR OSCILLATION
PS ; ELECTRONIC SHUTTER SPEED INPUT METHOD CHANGE
H ; PARALLEL INPUT
L ; SERIAL INPUT
SMD1, SMD2 ; SHUTTER MODE SET
TEST, TEST2 ; FOR TEST (NORMALLY Low)
VD ; VERTICAL DRIVE

OUTPUT

A5-A0 ; ADDRESS FOR EXTERNAL ROM
BFG ; PULSE FOR ENCODER • CHROMA MODULATOR
WHEN GM = H, ERROR POSITION SPECIFING PULSE
CL ; 4fsc CLOCK
CLD ; 4fsc CLOCK
CLP1, CLP4 ; PULSE FOR CLAMP
H1, H2 ; CLOCK FOR CCD HORIZONTAL REGISTER DRIVE
ID ; LINE IDENTIFICATION
OSCO ; INVERTER OUTPUT FOR OSCILLATION
PBLK ; BLANKING CLEANING PULSE
RG ; RESET GATE PULSE
WEN ; WRITE ENABLE (ONLY WHEN LOW SHUTTER SPEED)
XCK ; 8fsc CLOCK
XDL1, XDL2 ; CLOCK FOR DELAY LINE
XSG1, XSG2 ; CCD SENSOR ELECTRIC CHARGE READ OUT PULSE
XSH1, XSH2 ; SWITCHING SAMPLE HOLD PULSE
XSHD ; PULSE FOR DATA SAMPLE HOLD
XSHP ; PRE-CHARGE LEVEL SAMPLE HOLD PULSE
XSP1, XSP2 ; CHROMA SEPARATION SAMPLE HOLD PULSE
XSUB ; ELECTRIC CHARGE DISCHARGING PULSE
XV1-XV4 ; VERTICAL SCANNING CLOCK
XVCT ; POWER CONTROL FOR EXTERNAL ROM

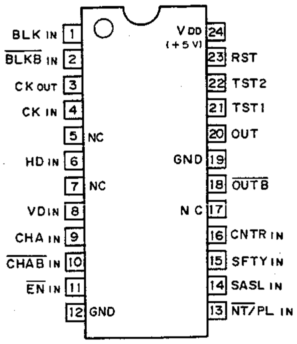
INPUT/OUTPUT

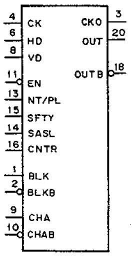
CLP2, CLP3 ; PULSE FOR CLAMP. WHEN GM = H, STANDBY MODE SWITCHING INPUT


D1 11
D2 12
D3 13
D4 14
GM 55
VD 60
HD 59
CL 57
XCK 63
CK 64
OSCI 2
OSCO 1
TEST 62
TEST2 36
DEFECT ADR COUNT
A
RAM
COUNTER
LATCH
MODE SET
GATE
ADR. COUNT
ROG ROM
LATCH
VD INITIALIZE
ADR. COUNT
V ROM
LATCH
GATE
HD INITIALIZE
ADR. COUNT
H ROM
LATCH
GATE
1/2
HIGH-SPEED CLOCK PULSE GEN
DRIVER
CONTROL
DECODER
SHUT. ROM
COUNTER
DECODE
GATE
15 A5
16 A4
17 A3
18 A0
19 A1
20 A2
61 HTSG
4 ED0
5 ED1
6 ED2
7 SMD1
9 SMD2
58 PS
30 XV2
31 XV1
32 XSG1
33 XV3
34 XSG2
35 XV4
10 XVCT
47 BFG
48 CLP1
49 CLP2
50 CLP3
51 CLP4
52 PBLK
53 ID
54 WEN
29 XSUB
3 EF
38 XSHP
39 XSHD
37 CLD
22 RG
46 XDL2
45 XDL1
44 XSH2
43 XSH1
42 XSP2
41 XSP1
23 LH1
26 H1
27 H2

CXD8154BM (SONY)

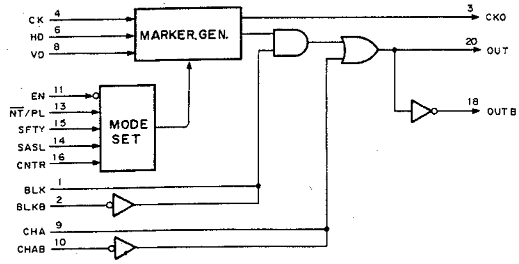
C-MOS GATE ARRAY
– TOP VIEW –


BLK IN 1
$\overline{\text{BLKB}}$ IN 2
CK OUT 3
CK IN 4
5 NC
HD IN 6
7 NC
VD IN 8
CHA IN 9
$\overline{\text{CHAB}}$ IN 10
$\overline{\text{EN}}$ IN 11
12 GND
VDD (+5V) 24
23 RST
22 TST2
21 TST1
20 OUT
GND 19
18 $\overline{\text{OUTB}}$
NC 17
16 CNTR IN
15 SFTY IN
14 SASL IN
13 $\overline{\text{NT}}$/PL IN


4 CK
6 HD
8 VD
11 EN
13 NT/PL
15 SFTY
14 SASL
16 CNTR
1 BLK
2 BLKB
9 CHA
10 CHAB
CKO 3
OUT 20
OUTB 18

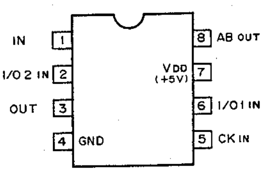
INPUT
BLK ; BLKG IN
$\overline{\text{BLKB}}$; BLKG IN
CHA ; CHR IN
$\overline{\text{CHAB}}$; CHR IN
CK ; CLOCK IN
CNTR ; CENTER $\overline{\text{ON}}$/OFF
EN ; ENABLE IN
HD ; HORIZONTAL DRIVE IN
$\overline{\text{NT}}$/PL ; $\overline{\text{NTSC}}$/PAL
RST ; RESET
SASL ; SAFETY $\overline{\text{80}}$/90
SFTY ; SAFETY $\overline{\text{ON}}$/OFF
VD ; VERTICAL DRIVE IN
TST1 ; TEST 1
TST2 ; TEST 2

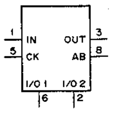
OUTPUT
OUT ; OUTPUT
$\overline{\text{OUTB}}$; OUTPUT
CKO ; CLOCK OUT


CK 4
HD 6
VD 8
MARKER.GEN.
EN 11
NT/PL 13
SFTY 15
SASL 14
CNTR 16
MODE SET
BLK 1
BLKB 2
CHA 9
CHAB 10
3 CKO
20 OUT
18 OUTB

CXL5504M (SONY)

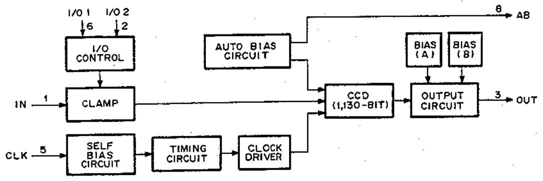
C-MOS CCD 1H DELAY LINE
– TOP VIEW –


IN 1
I/O 2 IN 2
OUT 3
4 GND
8 AB OUT
VDD (+5V) 7
6 I/O1 IN
5 CK IN


1 IN
5 CK
OUT 3
AB 8
I/O 1 6
I/O 2 2

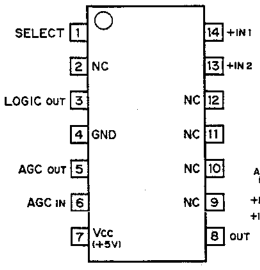
AB ; AUTO BIAS DC OUTPUT
CK ; CLOCK INPUT
IN ; SIGNAL INPUT

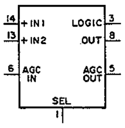
I/O1, I/O2 ; I/O CONTROL 1,2 INPUTS
OUT ; SIGNAL OUTPUT

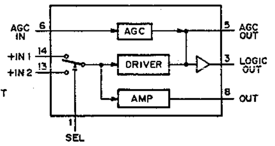

I/O 1 6
I/O 2 2
I/O CONTROL
IN 1
CLAMP
CLK 5
SELF BIAS CIRCUIT
TIMING CIRCUIT
CLOCK DRIVER
AUTO BIAS CIRCUIT
CCD (1,130-BIT)
BIAS (A)
BIAS (B)
OUTPUT CIRCUIT
8 AB
3 OUT

LA7205M (SANYO)

AGC AMP, INPUT SELECT, AGC DET, COMPARATOR
– SIDE VIEW –

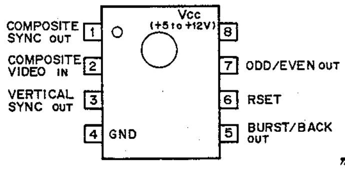

SELECT 1
2 NC
LOGIC OUT 3
4 GND
AGC OUT 5
AGC IN 6
7 Vcc (+5V)
14 +IN1
13 +IN2
NC 12
NC 11
NC 10
NC 9
8 OUT

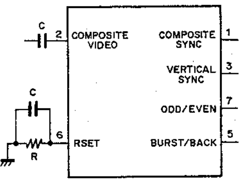

14 +IN1
13 +IN2
6 AGC IN
LOGIC 3
OUT 8
AGC OUT 5
SEL 1


AGC IN 6
+IN1 14
+IN2 13
AGC
DRIVER
AMP
5 AGC OUT
3 LOGIC OUT
8 OUT
1 SEL

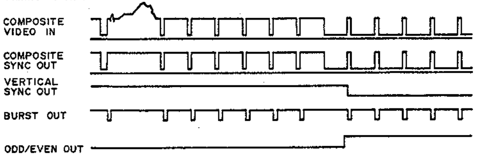
LM1881M (NS) FLAT PACKAGE

VIDEO SYNC SEPARATOR
– TOP VIEW –

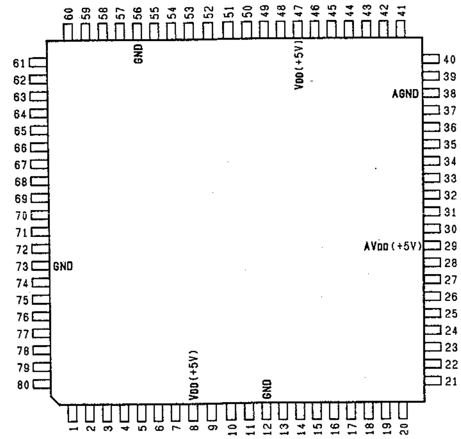

COMPOSITE SYNC OUT 1
COMPOSITE VIDEO IN 2
VERTICAL SYNC OUT 3
4 GND
Vcc (+5 to +12V) 8
7 ODD/EVEN OUT
6 RSET
5 BURST/BACK OUT


C
2 COMPOSITE VIDEO
C
R
6 RSET
COMPOSITE SYNC 1
VERTICAL SYNC 3
ODD/EVEN 7
BURST/BACK 5

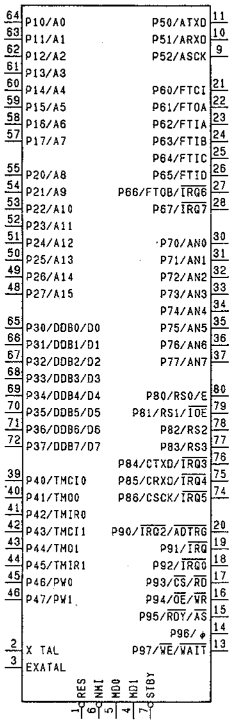
TIMING CHART



HD6413308F6 (HITACHI) FLAT PACKAGE
C-MOS 8-BIT SINGLE CHIP MICROCOMPUTER
– TOP VIEW –


GND
VDD(+5V)
AGND
AVDD(+5V)
GND
VDD(+5V)
GND

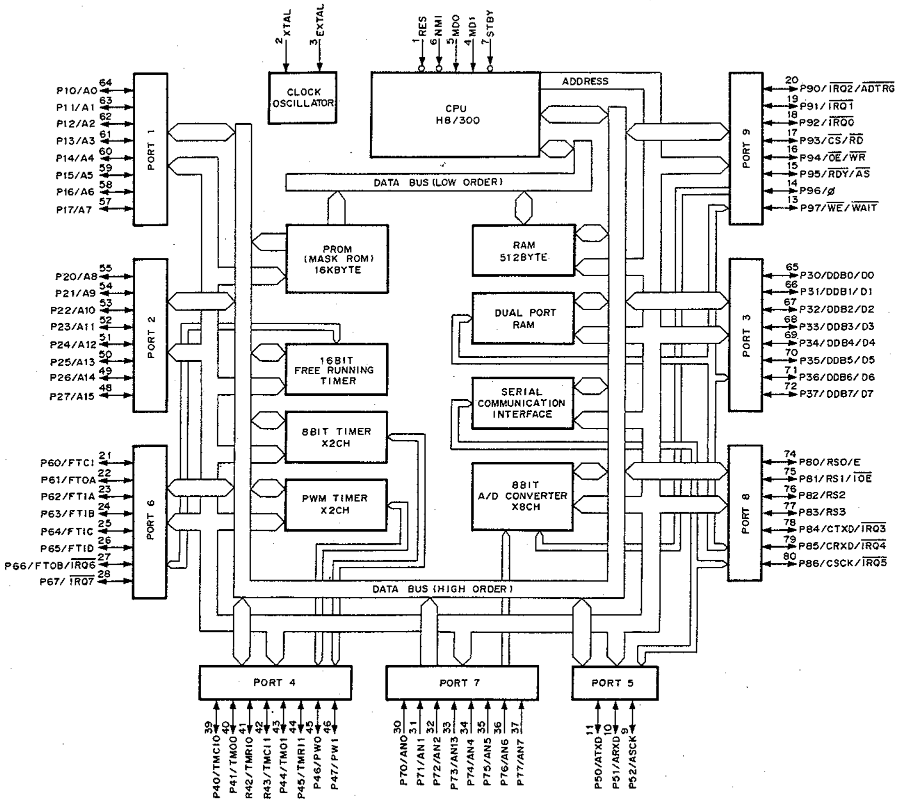
Pin No.	I/O	SIGNAL	Pin No.	I/O	SIGNAL	Pin No.	I/O	SIGNAL	Pin No.	I/O	SIGNAL
1	I	$\overline{RES}$	21	I/O	P60/FTCI	41	I/O	P42/TMRI0	61	I/O	P13/A3
2	I	XTAL	22	I/O	P61/FTOA	42	I/O	P43/TMCI1	62	I/O	P12/A2
3	I	EXTAL	23	I/O	P62/FTIA	43	I/O	P44/TMO1	63	I/O	P11/A1
4	I	MD1	24	I/O	P63/FTIB	44	I/O	P45/TMRI1	64	I/O	P10/A0
5	I	MD0	25	I/O	P94/FTIC	45	I/O	P46/PW0	65	I/O	P30/DDB0/D0
6	I	$\overline{NMI}$	26	I/O	P65/FTID	46	I/O	P47/PW1	66	I/O	P31/DDB1/D1
7	I	$\overline{STBY}$	27	I/O	P66/$\overline{FTOB}$/$\overline{IRQ6}$	47	–	VDD	67	I/O	P32/DDB2/D2
8	–	VDD	28	I/O	P67/$\overline{IRQ7}$	48	I/O	P27/A45	68	I/O	P33/DDB3/D3
9	I/O	P52/ASCK	29	–	AVDD	49	I/O	P26/A14	69	I/O	P34/DDB4/D4
10	I/O	P51/ARXD	30	I	P70/AN0	50	I/O	P25/A13	70	I/O	P35/DDB5/D5
11	I/O	P52/ATXD	31	I	P71/AN1	51	I/O	P24/A12	71	I/O	P36/DDB6/D6
12	–	GND	32	I	P72/AN2	52	I/O	P23/A11	72	I/O	P37/DDB7/D7
13	I/O	P97/$\overline{WE}$/$\overline{WAIT}$	33	I	P73/AN3	53	I/O	P22/A10	73	–	GND
14	I/O	P96/ϕ	34	I	P74/AN4	54	I/O	P21/A9	74	I/O	P80/RS0/E
15	I/O	P95/$\overline{RDY}$/$\overline{AS}$	35	I	P75/AN5	55	I/O	P20/A8	75	I/O	P81/RS1/$\overline{IOE}$
16	I/O	P94/$\overline{OE}$/$\overline{WR}$	36	I	P76/AN6	56	–	GND	76	I/O	P82/RS2
17	I/O	P93/$\overline{CS}$/$\overline{RD}$	37	I	P77/AN7	57	I/O	P17/A7	77	I/O	P83/RS3
18	I/O	P92/$\overline{IRQ0}$	38	–	-AGND	58	I/O	P16/A6	78	I/O	P84/CTXD/$\overline{IRQ3}$
19	I/O	P91/$\overline{IRQ1}$	39	I/O	P40/TMCI0	59	I/O	P15/A5	79	I/O	P85/CRXD/$\overline{IRQ4}$
20	I/O	P90/$\overline{ADTRG}$/$\overline{IRQ2}$	40	I/O	P41/TMO0	60	I/O	P14/A4	80	I/O	P86/CSCK/$\overline{IRQ5}$


64 P10/A0
63 P11/A1
62 P12/A2
61 P13/A3
60 P14/A4
59 P15/A5
58 P16/A6
57 P17/A7
55 P20/A8
54 P21/A9
53 P22/A10
52 P23/A11
51 P24/A12
50 P25/A13
49 P26/A14
48 P27/A15
65 P30/DDB0/D0
66 P31/DDB1/D1
67 P32/DDB2/D2
68 P33/DDB3/D3
69 P34/DDB4/D4
70 P35/DDB5/D5
71 P36/DDB6/D6
72 P37/DDB7/D7
39 P40/TMCI0
40 P41/TMO0
41 P42/TMRI0
42 P43/TMCI1
43 P44/TMO1
44 P45/TMRI1
45 P46/PW0
46 P47/PW1
2 X TAL
3 EXATAL
P50/ATXD 11
P51/ARXD 10
P52/ASCK 9
P60/FTCI 21
P61/FTOA 22
P62/FTIA 23
P63/FTIB 24
P64/FTIC 25
P65/FTID 26
P66/FTOB/IRQ6 27
P67/IRQ7 28
P70/AN0 30
P71/AN1 31
P72/AN2 32
P73/AN3 33
P74/AN4 34
P75/AN5 35
P76/AN6 36
P77/AN7 37
P80/RS0/E 80
P81/RS1/IOE 79
P82/RS2 78
P83/RS3 77
P84/CTXD/IRQ3 76
P85/CRXD/IRQ4 75
P86/CSCK/IRQ5 74
P90/IRQ2/ADTRG 20
P91/IRQ 19
P92/IRQ0 18
P93/CS/RD 17
P94/OE/WR 16
P95/RDY/AS 15
P96/ϕ 14
P97/WE/WAIT 13
1 RES
6 NMI
5 MD0
4 MD1
7 STBY

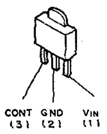
INPUT
A15–A0 ;ADDRESS BUS
ADTRG ;A/D CONVERSION EXIT TRIGGER
AN7–AN0 ;ANALOG
ARXD, CRXD ;RECEIVE DATA
CS ;CHIP SELECT
FTCI ;FREE RUNNING TIMER CLOCK
IRQ0–IRQ7 ;INTERRUPT REQUEST
MD0, MD1 ;MODE
NMI ;INTERRUPT FOR NO MASKING
OE ;OUTPUT ENABLE
P77–P70 ;PORT 7
RES ;RESET
RS3–RS0 ;REGISTER SELECT
STBY ;STANDBY
TMCI0, TMCI1 ;8–BIT TIMER CLOCK
TMRI0, TMRI1 ;8–BIT TIMER COUNTER RESET
XTAL, EXTAL ;CRYSTAL
WAIT ;WAIT
WE ;WRITE ENABLE

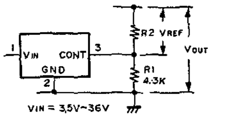
OUTPUT
ATXD, CTXD ;TRANSMIT DATA
AS ;ADDRESS STROBE
E ;ENABLE CLOCK
FTOA, FTOB ;FREE RUNNING TIMER COMPARE
IOS ;I/O SELECT
PW0, PW1 ;PWM TIMER
RD ;READ
RDY ;READY
TM00, TM01 ;8–BIT TIMER
WR ;WRITE
ϕ ;SYSTEM CLOCK

INPUT/OUTPUT
ASCK, CSCK ;SERIAL CLOCK
D7–D0 ;DATA BUS
DDB7–DDB0 ;DPRAM DATA BUS
P17–P10 ;PORT 1
P27–P20 ;PORT 2
P37–P30 ;PORT 3
P47–P40 ;PORT 4
P52–P50 ;PORT 5
P67–P60 ;PORT 6
P86–P80 ;PORT 8
P97–P90 ;PORT 9


2 XTAL
3 EXTAL
1 RES
6 NMI
5 MD0
4 MD1
7 STBY
CLOCK OSCILLATOR
CPU H8/300
ADDRESS
DATA BUS (LOW ORDER)
PROM (MASK ROM) 16KBYTE
RAM 512BYTE
DUAL PORT RAM
16BIT FREE RUNNING TIMER
SERIAL COMMUNICATION INTERFACE
8BIT TIMER X2CH
PWM TIMER X2CH
8BIT A/D CONVERTER X8CH
DATA BUS (HIGH ORDER)
PORT 1
PORT 2
PORT 6
PORT 9
PORT 3
PORT 8
PORT 4
PORT 7
PORT 5
64 P10/A0
63 P11/A1
62 P12/A2
61 P13/A3
60 P14/A4
59 P15/A5
58 P16/A6
57 P17/A7
55 P20/A8
54 P21/A9
53 P22/A10
52 P23/A11
51 P24/A12
50 P25/A13
49 P26/A14
48 P27/A15
21 P60/FTCI
22 P61/FTOA
23 P62/FTIA
24 P63/FTIB
25 P64/FTIC
26 P65/FTID
27 P66/FTOB/IRQ6
28 P67/IRQ7
20 P90/IRQ2/ADTRG
19 P91/IRQ1
18 P92/IRQ0
17 P93/CS/RD
16 P94/OE/WR
15 P95/RDY/AS
14 P96/ø
13 P97/WE/WAIT
65 P30/DDB0/D0
66 P31/DDB1/D1
67 P32/DDB2/D2
68 P33/DDB3/D3
69 P34/DDB4/D4
70 P35/DDB5/D5
71 P36/DDB6/D6
72 P37/DDB7/D7
74 P80/RS0/E
75 P81/RS1/IOE
76 P82/RS2
77 P83/RS3
78 P84/CTXD/IRQ3
79 P85/CRXD/IRQ4
80 P86/CSCK/IRQ5
39 P40/TMCI0
40 P41/TMO0
41 R42/TMRI0
42 R43/TMCI1
43 P44/TMO1
44 P45/TMRI1
45 P46/PW0
46 P47/PW1
30 P70/AN0
31 P71/AN1
32 P72/AN2
33 P73/AN3
34 P74/AN4
35 P75/AN5
36 P76/AN6
37 P77/AN7
11 P50/ATXD
10 P51/ARXD
9 P52/ASCK

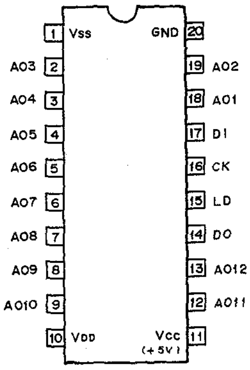
M5237ML (MITSUBISHI)
ADJUSTABLE VOLTAGE REGULATOR

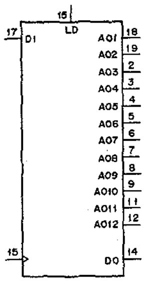

CONT (3)
GND (2)
VIN (1)


1
VIN
CONT
3
GND
2
R2
VREF
VOUT
R1
4.3K

$V_{IN} = 3.5V \sim 36V$
$V_{OUT} = 1.5V \sim 33V$
$V_{OUT} = V_{REF}(1+\frac{R2}{R1}) \fallingdotseq 1.26 \times (1+\frac{R2}{4.3})(V)$
$(R1 = 4.3K\Omega,\ V_{REF} \fallingdotseq 1.26V)$

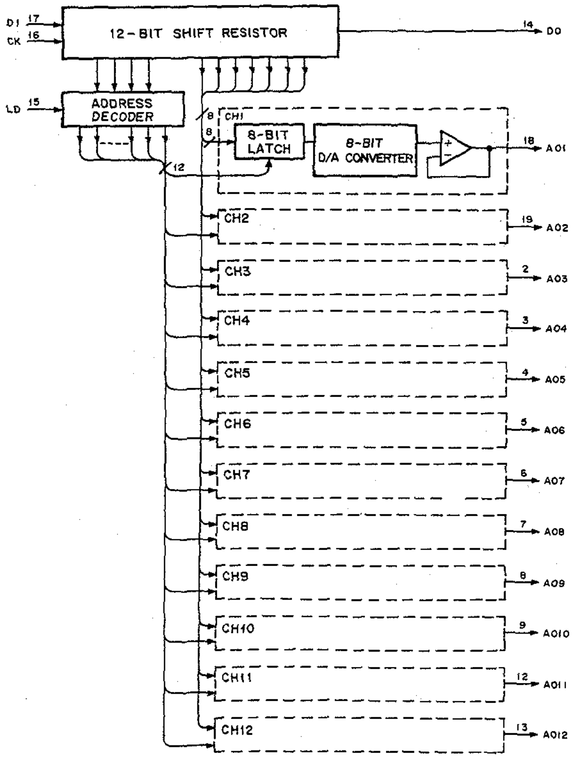
M62352GP (MITSUBISHI) FLAT PACKAGE
C-MOS 8-BITx12 CHANNEL D/A CONVERTER
(WITH BUFFER OPERATIONAL AMPLIFIER)
– TOP VIEW –


1 Vss
A03 2
A04 3
A05 4
A06 5
A07 6
A08 7
A09 8
A010 9
10 VDD
GND 20
19 A02
18 A01
17 DI
16 CK
15 LD
14 DO
13 A012
12 A011
Vcc (+5V) 11

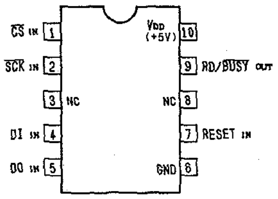

17 DI
16 LD
A01 18
A02 19
A03 2
A04 3
A05 4
A06 5
A07 6
A08 7
A09 8
A010 9
A011 11
A012 12
15
DO 14

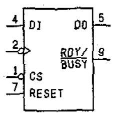
AO1 – AO12	; 8-BIT D/A OUTPUT
CK	; CLOCK INPUT
DI	; SERIAL DATA INPUT
DO	; DATA OUTPUT

NOTE :
3.5V < VDD < Vcc
– 3.5V < Vss < Vcc

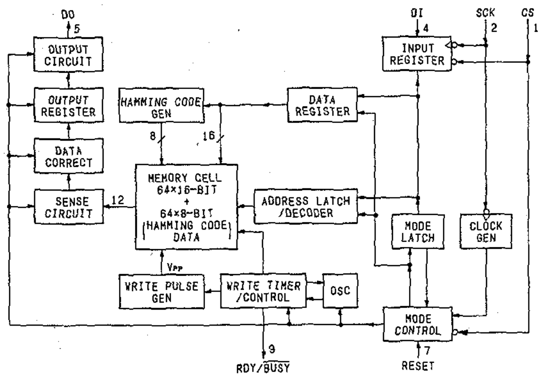

DI 17
CK 16
12-BIT SHIFT RESISTOR
14 DO
LD 15
ADDRESS DECODER
12
8
CH1
8-BIT LATCH
8-BIT D/A CONVERTER
18 A01
CH2
19 A02
CH3
2 A03
CH4
3 A04
CH5
4 A05
CH6
5 A06
CH7
6 A07
CH8
7 A08
CH9
8 A09
CH10
9 A010
CH11
12 A011
CH12
13 A012

M6M80011AFP (MITSUBISHI) FLAT PACKAGE
C-MOS 1k (64x16) BIT ERASABLE PROM
– TOP VIEW –

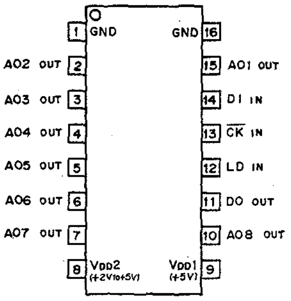

CS IN 1
SCK IN 2
3 NC
DI IN 4
DO IN 5
VDD (+5V) 10
9 RD/BUSY OUT
NC 8
7 RESET IN
GND 6

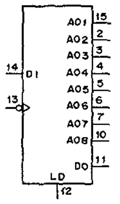

4 DI
DO 5
2
RDY/BUSY 9
1 CS
7 RESET

CS	; CHIP SELECT INPUT
DI	; DATA INPUT
DO	; DATA OUTPUT
RDY/$\overline{BUSY}$	; BUSY OUTPUT
RESET	; RESET INPUT
SCK	; CLOCK INPUT

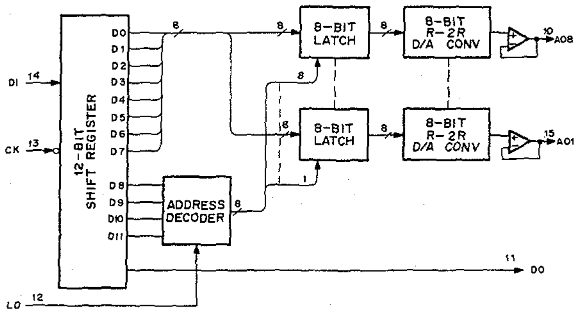

DO
5
OUTPUT CIRCUIT
OUTPUT REGISTER
DATA CORRECT
SENSE CIRCUIT
12
HAMMING CODE GEN
8
16
MEMORY CELL 64×16-BIT + 64×8-BIT (HAMMING CODE) DATA
DATA REGISTER
ADDRESS LATCH /DECODER
VPP
WRITE PULSE GEN
WRITE TIMER /CONTROL
OSC
DI
4
SCK
2
CS
1
INPUT REGISTER
MODE LATCH
CLOCK GEN
MODE CONTROL
9
RDY/BUSY
7
RESET

MB88347PFV-G-BND (FUJITSU) FLAT PACKAGE
C-MOS 8-BIT D/A CONVERTER
– TOP VIEW –


1 GND
A02 OUT 2
A03 OUT 3
A04 OUT 4
A05 OUT 5
A06 OUT 6
A07 OUT 7
8 VDD2 (+2V to +5V)
GND 16
15 A01 OUT
14 DI IN
13 CK IN
12 LD IN
11 DO OUT
10 A08 OUT
VDD1 (+5V) 9

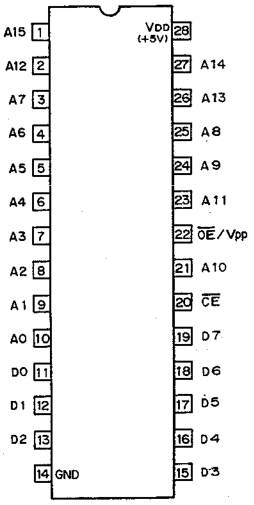

14 DI
13
A01 15
A02 2
A03 3
A04 4
A05 5
A06 6
A07 7
A08 10
DO 11
LD
12

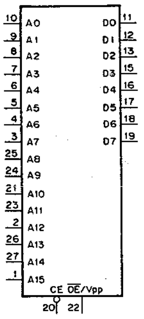
AO1 – AO12	; 8-BIT D/A OUTPUTS
CK	; CLOCK INPUT
DI	; SERIAL DATA INPUT
DO	; DATA OUTPUT
LD	; DATA LOAD CONTROL INPUT (H ; LOAD)


DI 14
CK 13
12-BIT SHIFT REGISTER
D0
D1
D2
D3
D4
D5
D6
D7
D8
D9
D10
D11
8
8-BIT LATCH
8-BIT R-2R D/A CONV
10 A08
15 A01
ADDRESS DECODER
11 DO
LD 12

MBM27C512-20 (FUJITSU)
MBM27C512P-15PF (FUJITSU)

C-MOS 512K(65,536X8=524,288)-BIT
- TOP VIEW -

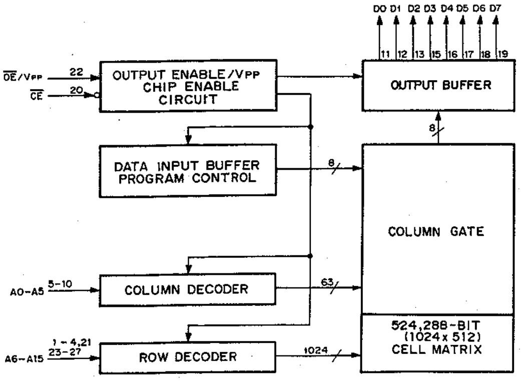

A15 1
A12 2
A7 3
A6 4
A5 5
A4 6
A3 7
A2 8
A1 9
A0 10
D0 11
D1 12
D2 13
14 GND
VDD (+5V) 28
27 A14
26 A13
25 A8
24 A9
23 A11
22 OE/Vpp
21 A10
20 CE
19 D7
18 D6
17 D5
16 D4
15 D3


A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
A13
A14
A15
D0
D1
D2
D3
D4
D5
D6
D7
CE
OE/Vpp
20
22

A0 – A15 : ADDRESS INPUTS
CE : CHIP ENABLE INPUT
D0 – D7 : DATA OUTPUTS
OE : OUTPUT ENABLE INPUT
VPP : PROGRAM POWER SUPPLY

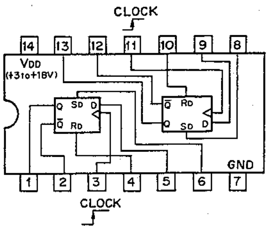
An	CE	OE/VPP	VDD	Dn	FUNCTION
AIN	0	0	+5V	DOUT	READ
AIN	0	1	+5V	HI-Z	OUTPUT DISABLE
X	1	X	+5V	HI-Z	STANDBY
AIN	0	+12.5V	+6V	DIN	PGM
AIN	0	0	+6V	DOUT	PGM VERIFY
X	1	+12.5V	+6V	HI-Z	PGM INH

0 : LOW LEVEL
1 : HIGH LEVEL
X : DON'T CARE
HI-Z : HIGH IMPEDANCE


D0 D1 D2 D3 D4 D5 D6 D7
11 12 13 15 16 17 18 19
OE/VPP 22
CE 20
OUTPUT ENABLE/VPP CHIP ENABLE CIRCUIT
OUTPUT BUFFER
8
DATA INPUT BUFFER PROGRAM CONTROL
8
COLUMN GATE
A0–A5 5–10
COLUMN DECODER
63
A6–A15 1 – 4,21 23–27
ROW DECODER
1024
524,288-BIT (1024x512) CELL MATRIX

MC14013BF (MOTOROLA) FLAT PACKAGE

C-MOS DUAL D-TYPE FLIP-FLOPS WITH DIRECT SET/RESET
- TOP VIEW -


CLOCK
14
13
12
11
10
9
8
VDD (+3to+18V)
Q SD D
Q RD
Q RD
Q SD D
GND
1
2
3
4
5
6
7
CLOCK

DIRECT R-S FLIP-FLOP

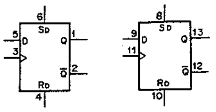
SD	RD	Q	$\overline{Q}$
0	0	Qn	$\overline{Qn}$
0	1	0	1
1	0	1	0
1	1	1	1

D-TYPE FLIP-FLOP

CKn	CKn+1
D	Q
0	0
1	1

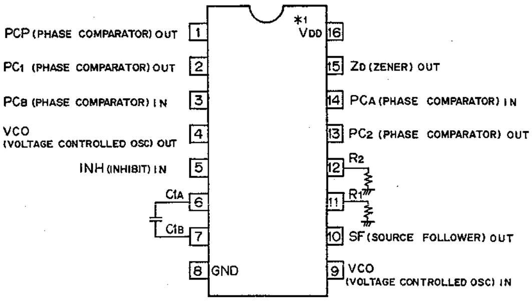
0:LOW LEVEL
1:HIGH LEVEL

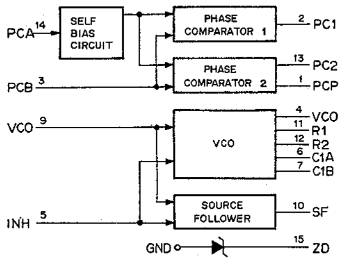
CLOCK CK; _↑‾
CKn; BEFORE CLOCK
CKn+1; AFTER CLOCK

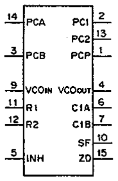

6
5 D
3
SD
Q 1
Q 2
RD
4
8
9 D
11
SD
Q 13
Q 12
RD
10

MC14046BF (MOTOROLA) FLAT PACKAGE

C-MOS PHASE LOCKED LOOP
– TOP VIEW –


PCP (PHASE COMPARATOR) OUT 1
PC1 (PHASE COMPARATOR) OUT 2
PCB (PHASE COMPARATOR) IN 3
VCO (VOLTAGE CONTROLLED OSC) OUT 4
INH (INHIBIT) IN 5
C1A 6
C1B 7
8 GND
*1 VDD 16
15 ZD (ZENER) OUT
14 PCA (PHASE COMPARATOR) IN
13 PC2 (PHASE COMPARATOR) OUT
12 R2
11 R1
10 SF (SOURCE FOLLOWER) OUT
9 VCO (VOLTAGE CONTROLLED OSC) IN


PCA 14
SELF BIAS CIRCUIT
PHASE COMPARATOR 1
2 PC1
PHASE COMPARATOR 2
13 PC2
1 PCP
PCB 3
VCO 9
VCO
4 VCO
11 R1
12 R2
6 C1A
7 C1B
INH 5
SOURCE FOLLOWER
10 SF
GND
15 ZD

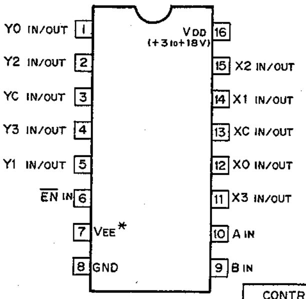

14 PCA
3 PCB
9 VCOIN
11 R1
12 R2
5 INH
PC1 2
PC2 13
PCP 1
VCOOUT 4
C1A 6
C1B 7
SF 10
ZD 15

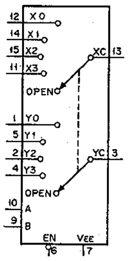
*1

TYPE	VDD
CD4046BE HD14046BP MC14046BCP MC14046BF TC4046BP	+3 to +8V
MC74HC4046AF MC74HC4046AN	+2 to +6V

MC14052BF (MOTOROLA) FLAT PACKAGE
TC4052BFHB (TOSHIBA) FLAT PACKAGE

C-MOS DUAL 4-CHANNEL ANALOG MULTIPLEXERS/DEMULTIPLEXERS
– TOP VIEW –


Y0 IN/OUT 1
Y2 IN/OUT 2
YC IN/OUT 3
Y3 IN/OUT 4
Y1 IN/OUT 5
EN IN 6
7 VEE*
8 GND
VDD (+3to+18V) 16
15 X2 IN/OUT
14 X1 IN/OUT
13 XC IN/OUT
12 X0 IN/OUT
11 X3 IN/OUT
10 A IN
9 B IN


12 X0
14 X1
15 X2
11 X3
OPEN
XC 13
1 Y0
5 Y1
2 Y2
4 Y3
OPEN
YC 3
10 A
9 B
EN 6
VEE 7

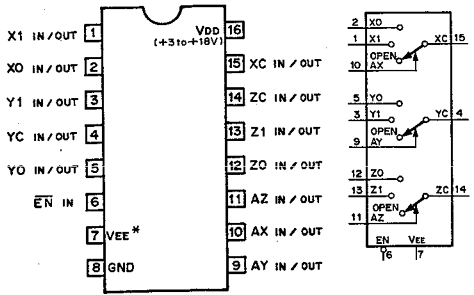
VEE*; VDD – VEE = +3 to +18V

CONTROL INPUTS			"ON" CHANNEL
EN	B	A	
0	0	0	0
0	0	1	1
0	1	0	2
0	1	1	3
1	X	X	OPEN

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE.

HD14053BFP (HITACHI) FLAT PACKAGE
MC14053BF (MOTOROLA) FLAT PACKAGE
TC4053BFS (TOSHIBA) FLAT PACKAGE

C-MOS TRIPLE 2-CHANNEL ANALOG MULTIPLEXERS/DEMUL TIPLEXERS
- TOP VIEW -


X1 IN / OUT 1
X0 IN / OUT 2
Y1 IN / OUT 3
YC IN / OUT 4
Y0 IN / OUT 5
EN IN 6
7 VEE*
8 GND
VDD (+3 to +18V) 16
15 XC IN / OUT
14 ZC IN / OUT
13 Z1 IN / OUT
12 Z0 IN / OUT
11 AZ IN / OUT
10 AX IN / OUT
9 AY IN / OUT
2 X0
1 X1
OPEN
10 AX
XC 15
5 Y0
3 Y1
OPEN
9 AY
YC 4
12 Z0
13 Z1
OPEN
11 AZ
ZC 14
EN 6
VEE 7

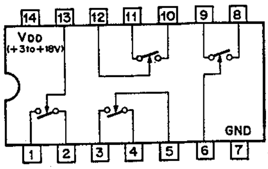
VEE*; VDD−VEE = +3 to +18 V

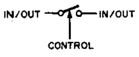
0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE.

CONT. INPUTS		ON CHANNEL
EN	A (X,Y,Z,)	
0	0	0
0	1	1
1	X	OPEN

MC14066BF (MOTOROLA) FLAT PACKAGE
TC4066BFS (TOSHIBA) FLAT PACKAGE

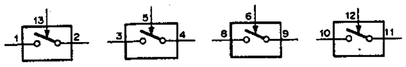
C-MOS QUAD BILATERAL ANALOG SWITCH
– TOP VIEW –


14
13
12
11
10
9
8
VDD (+3 to +18V)
GND
1
2
3
4
5
6
7


IN/OUT
IN/OUT
CONTROL

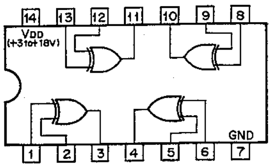
CONTROL	SWITCH
0	OFF
1	ON

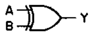
0; LOW LEVEL
1; HIGH LEVEL


13
1
2
5
3
4
6
8
9
12
10
11

MC14070BF (MOTOROLA) FLAT PACKAGE

C-MOS QUAD EXCLUSIVE OR GATES
– TOP VIEW –


14
13
12
11
10
9
8
VDD (+3 to +18V)
GND
1
2
3
4
5
6
7



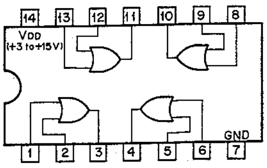
$Y = \overline{A} \cdot B + A \cdot \overline{B}$

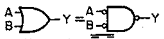
A	B	Y
0	0	0
0	1	1
1	0	1
1	1	0

0; LOW LEVEL
1; HIGH LEVEL

MC14071BF (MOTOROLA) FLAT PACKAGE

C-MOS 2-INPUT OR GATE
– TOP VIEW –


14
13
12
11
10
9
8
VDD (+3 to +15V)
GND
1
2
3
4
5
6
7

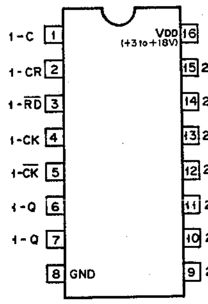


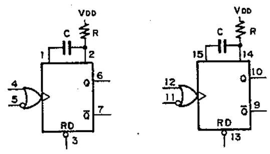
$Y = A + B = \overline{\overline{A} \cdot \overline{B}}$

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

0; LOW LEVEL
1; HIGH LEVEL

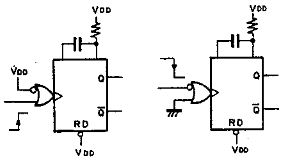
MC14538BF (MOTOROLA) FLAT PACKAGE
C-MOS DUAL RETRIGGERABLE MONOSTABLE MULTIVIBRATORS
– TOP VIEW –


1-C 1
1-CR 2
1-RD 3
1-CK 4
1-CK 5
1-Q 6
1-Q 7
8 GND
VDD (+3 to +18V) 16
15 2-C
14 2-CR
13 2-RD
12 2-CK
11 2-CK
10 2-Q
9 2-Q

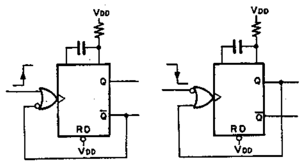

VDD
C
R
1
2
4
5
6
Q
7
Q
RD
3
VDD
C
R
15
14
12
11
10
Q
9
Q
RD
13

OUTPUT PULSE WIDTH = C·R

RETRIGGERABLE M.M.V

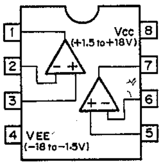

VDD
VDD
Q
Q
RD
VDD
VDD
Q
Q
RD
VDD

NON-RETRIGGERABLE M.M.V


VDD
Q
Q
RD
VDD
VDD
Q
Q
RD
VDD

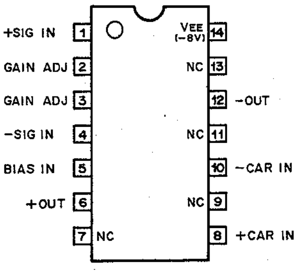
MC34182M (MOTOROLA) FLAT PACKAGE
TL062CPS (TI) FLAT PACKAGE

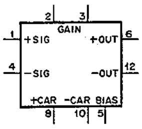
OPERATIONAL AMPLIFIER
(J FET INPUT)
– TOP VIEW –


1
2
3
4
VEE (−18 to −1.5V)
Vcc (+1.5 to +18V)
8
7
6
5

NJM1496M (JRC) FLAT PACKAGE

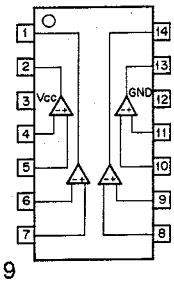
BALANCED MODULATOR/DEMODULATOR
– TOP VIEW –


+SIG IN 1
GAIN ADJ 2
GAIN ADJ 3
−SIG IN 4
BIAS IN 5
+OUT 6
7 NC
VEE (−8V) 14
NC 13
12 −OUT
NC 11
10 −CAR IN
NC 9
8 +CAR IN

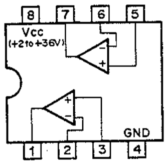

2
3
GAIN
1
+SIG
+OUT
6
4
−SIG
−OUT
12
+CAR
−CAR
BIAS
8
10
5

LM2901M (MOTOROLA) FLAT PACKAGE
NJM2901M (JRC) FLAT PACKAGE

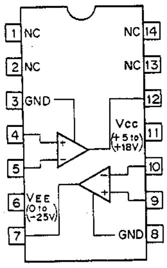
SINGLE SUPPLY COMPARATOR
- TOP VIEW -


1
2
3
4
5
6
7
Vcc
GND
14
13
12
11
10
9
8

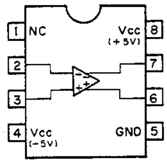
NJM2903M (JRC) FLAT PACKAGE
DUAL VOLTAGE COMPARATORS
– TOP VIEW –


8
7
6
5
Vcc
(+2to+36V)
GND
1
2
3
4

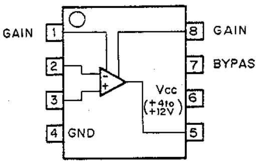
NJM319M (JRC) FLAT PACKAGE
DUAL VOLTAGE COMPARATOR
– TOP VIEW –


1 NC
2 NC
3 GND
4
5
6 VEE (0 to -25V)
7
NC 14
NC 13
12
Vcc (+5 to +18V) 11
10
9
GND 8

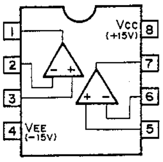
NJM360M (JRC) FLAT PACKAGE
HIGH SPEED VOLTAGE COMPARATOR
(TTL OUTPUT)
– TOP VIEW –


1 NC
2
3
4 Vcc (-5V)
Vcc (+5V) 8
7
6
GND 5

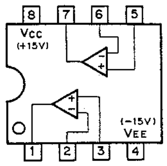
NJM386M (JRC) FLAT PACKAGE
AUDIO POWER AMPLIFIER
– TOP VIEW –


GAIN 1
2
3
4 GND
8 GAIN
7 BYPASS
Vcc (+4to +12V) 6
5

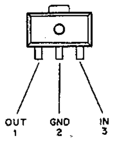
NJM4556M (JRC) FLAT PACKAGE
OPERATIONAL AMPLIFIER
(WIDE BAND, DECOMPENSATED)
– TOP VIEW –

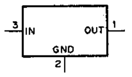

1
2
3
4 VEE (-15V)
Vcc (+15V) 8
7
6
5

NJM4558M (JRC) FLAT PACKAGE
NJM4560MD (JRC) FLAT PACKAGE
DUAL OPERATIONAL AMPLIFIER
– TOP VIEW –

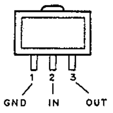

8
7
6
5
Vcc (+15V)
(-15V) VEE
1
2
3
4

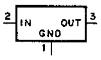
NJM78L05UA (JRC) +5 V (100 mA)
POSITIVE VOLTAGE REGULATOR
– SIDE VIEW –


OUT 1
GND 2
IN 3

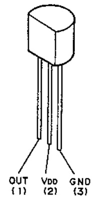

3 IN
OUT 1
GND 2

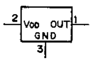
RH5RA50AA-T1 (RICOH) +5.0V FLAT PACKAGE
RH5RE50AA (RICOH) +5.0V
THREE TERMINAL POSITIVE VOLTAGE REGULATOR
– TOP VIEW –


1 GND
2 IN
3 OUT


2 IN
OUT 3
GND 1

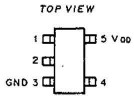
S-8054ALR (SEIKO I AND E) 4.30V – 4.60V
S-8054HN (SEIKO I AND E) 3.80V – 4.20V
C-MOS VOLTAGE DETECTOR

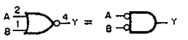

OUT (1)
VDD (2)
GND (3)


2 VDD
OUT 1
GND 3

SC7S02F (MOTOROLA) CHIP PACKAGE
TC4S01F (TOSHIBA) CHIP PACKAGE
C-MOS 2-INPUT NOR GATE

TOP VIEW


1
2
GND 3
5 VDD
4



$Y = \overline{A + B} = \overline{A} \cdot \overline{B}$

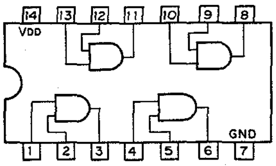
A	B	Y
0	0	1
0	1	0
1	0	0
1	1	0

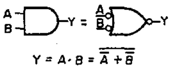
0 ; LOW LEVEL
1 ; HIGH LEVEL

TYPE	VDD
4S01F	+3 to +18V
7S02F	+2 to +6V

SN74HC08APW (TI) FLAT PACKAGE
TC40H008F (TOSHIBA) FLAT PACKAGE

C-MOS QUAD 2-INPUT AND GATES
– TOP VIEW –


14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7



$Y = A \cdot B = \overline{\overline{A} + \overline{B}}$

A	B	Y
0	0	0
0	1	0
1	0	0
1	1	1

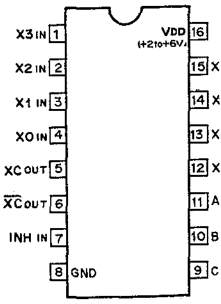
0 ; LOW LEVEL
1 ; HIGH LEVEL

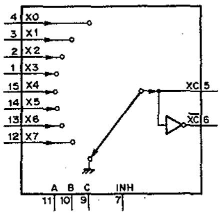
NOTE :

TYPE	VDD
TC74AC08F MC74ACT08M	+2 to +5.5V
TC40H	+2 to +8V
OTHER TYPES	+2 to +6V

SN74HC151ANS (TI) FLAT PACKAGE

C-MOS 8-LINE-TO-1-LINE DATA SELECTOR/MULTIPLEXER
– TOP VIEW –


X3 IN 1
X2 IN 2
X1 IN 3
X0 IN 4
XC OUT 5
XC OUT 6
INH IN 7
8 GND
VDD (+2to+6V) 16
15 X4 IN
14 X5 IN
13 X6 IN
12 X7 IN
11 A IN
10 B IN
9 C IN

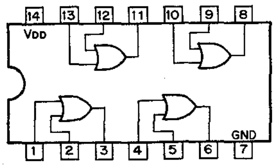

4 X0
3 X1
2 X2
1 X3
15 X4
14 X5
13 X6
12 X7
XC 5
XC 6
A B C INH
11 10 9 7

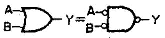
0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE

CONTROL INPUTS				ON CHANNEL
INH	C	B	A	
0	0	0	0	0
0	0	0	1	1
0	0	1	0	2
0	0	1	1	3
0	1	0	0	4
0	1	0	1	5
0	1	1	0	6
0	1	1	1	7
1	X	X	X	GND

SN74HC32APW (TI) FLAT PACKAGE

C-MOS QUAD 2-INPUT OR GATES
– TOP VIEW –


14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7



$Y = A + B = \overline{\overline{A} \cdot \overline{B}}$

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

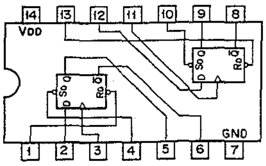
0 ; LOW LEVEL
1 ; HIGH LEVEL

NOTE :

TYPE	VDD
TC74AC32 TYPE TC74VHC32	+2 to +5.5V
OTHER TYPES	+2 to +6V

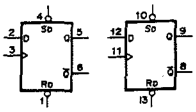
SN74HC74ANS (TI) FLAT PACKAGE
SN74HC74APW (TI) FLAT PACKAGE

C-MOS DUAL D-TYPE FLIP-FLOPS WITH DIRECT SET/RESET
– TOP VIEW –


14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7
SD
RD

INPUTS				OUTPUTS	
$\overline{SD}$	$\overline{RD}$	CK	D	Qn+1	$\overline{Qn+1}$
0	1	X	X	1	0
1	0	X	X	0	1
0	0	X	X	1	1
1	1	↑	1	1	0
1	1	↑	0	0	1
1	1	0	X	Qn	$\overline{Qn}$

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE

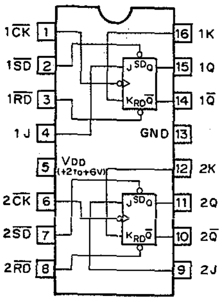

4
SD
2 D
3
Q 5
Q 6
RD
1
10
SD
12 D
11
Q 9
Q 8
RD
13

NOTE :

TYPE	VDD
TC74HCT74AF	+5V
TC74AC74 TYPE	+2 to +5.5V
74ACT74 TYPE	+4.5 to +5.5V
OTHER TYPES	+2 to +6V

MC74HC76F (MOTOROLA) FRAT PACKAGE
SN74HC76NS (TI) FLAT PACKAGE

C-MOS DUAL J-K FLIP FLOP WITH DIRECT SET/RESET
- TOP VIEW -

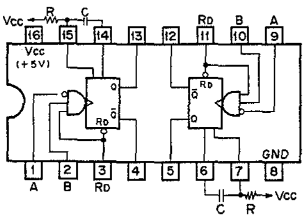

1CK 1
1SD 2
1RD 3
1J 4
VDD (+2to+6V) 5
2CK 6
2SD 7
2RD 8
16 1K
15 1Q
14 1Q
GND 13
12 2K
11 2Q
10 2Q
9 2J
J SD Q
K RD Q

INPUTS					OUTPUTS		FUNCTION
RD	SD	J	K	CK	Q	$\overline{Q}$	
0	1	X	X	X	0	1	RESET
1	0	X	X	X	1	0	SET
0	0	X	X	X	1	1	
1	1	0	0	↓	Qn	$\overline{Qn}$	NO CHANGE
1	1	0	1	↓	0	1	
1	1	1	0	↓	1	0	
1	1	1	1	↓	$\overline{Qn}$	Qn	TOGGLE
1	1	X	X	↑	Qn	$\overline{Qn}$	NO CHANGE

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE

SN74LS123NS (TI) FLAT PACKAGE

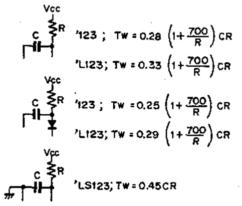
TTL RETRIGGERABLE MONOSTABLE MULTIVIBRATOR WITH DIRECT RESET
– TOP VIEW –


Vcc
R
C
RD
B
A
16
15
14
13
12
11
10
9
Vcc (+5V)
GND
1
2
3
4
5
6
7
8
A
B
RD
C
R
Vcc

INPUTS			OUTPUTS	
RD	A	B	Q	$\overline{Q}$
0	X	X	0	1
X	1	X	0	1
X	X	0	0	1
1	0	↑	⎍	⊔
1	↓	1	⎍	⊔
↑	0	1	⎍	⊔

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE

OUTPUT PULSE WIDTH


Vcc
C
R
Vcc
C
R
Vcc
C
R

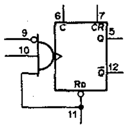
'123 ; $T_W = 0.28\left(1+\frac{700}{R}\right)CR$

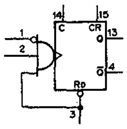
'L123; $T_W = 0.33\left(1+\frac{700}{R}\right)CR$

'123 ; $T_W = 0.25\left(1+\frac{700}{R}\right)CR$

'L123; $T_W = 0.29\left(1+\frac{700}{R}\right)CR$

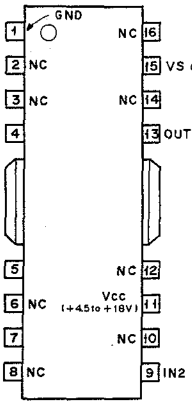
'LS123; $T_W = 0.45CR$

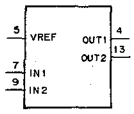

6
7
9
10
C
CR
5
Q
Q
12
RD
11


14
15
1
2
C
CR
13
Q
Q
4
RD
3

TA7291F (TOSHIBA) FLAT PACKAGE

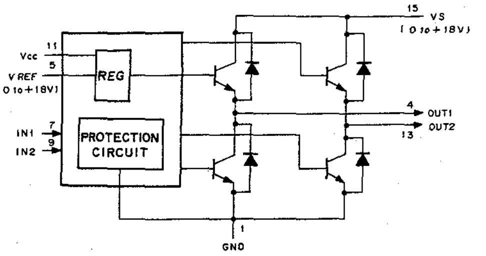
DC MOTOR FULLBRIDGE DRIVER
– TOP VIEW –


GND 1
NC 2
NC 3
OUT1 4
VREF IN 5
NC 6
IN1 7
NC 8
NC 16
15 VS OUT
NC 14
13 OUT 2
NC 12
Vcc (+4.5to+18V) 11
NC 10
9 IN2


5 VREF
7 IN1
9 IN2
OUT1 4
OUT2 13

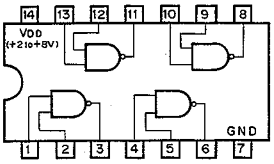
INPUT		OUTPUT		MODE
IN1	IN2	OUT1	OUT2	
0	0	HI-Z	HI-Z	STOP
1	0	1	0	CW/CCW
0	1	0	1	CCW/CW
1	1	0	0	BRAKE

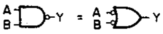
0 ; LOW LEVEL
1 ; HIGH LEVEL
HI-Z; HIGH IMPEDANCE


15 VS (0 to +18V)
Vcc 11
VREF (0 to +18V) 5
REG
IN1 7
IN2 9
PROTECTION CIRCUIT
4 OUT1
13 OUT2
1 GND

TC40H000F (TOSHIBA) FLAT PACKAGE

C-MOS 2-INPUT NAND GATE
– TOP VIEW –


14
13
12
11
10
9
8
VDD
(+2to+8V)
GND
1
2
3
4
5
6
7



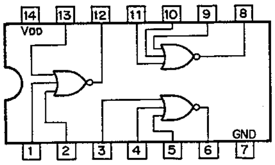
$Y = \overline{A \cdot B} = \overline{A} + \overline{B}$

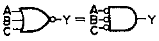
A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

0; LOW LEVEL
1; HIGH LEVEL

TC40H027F (TOSHIBA) FLAT PACKAGE

C-MOS 3-LINE POSITIVE-NOR GATE
– TOP VIEW –


14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7



$Y = \overline{A+B+C} = \overline{A} \cdot \overline{B} \cdot \overline{C}$

A	B	C	Y
0	0	0	1
0	0	1	0
0	1	0	0
0	1	1	0
1	0	0	0
1	0	1	0
1	1	0	0
1	1	1	0

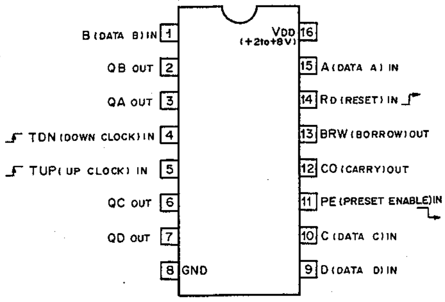
0 ; LOW LEVEL
1 ; HIGH LEVEL

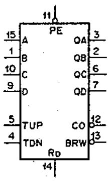
NOTE :

TYPE	VDD
TC40H	+2 to +8V
OTHERS	+2 to +6V

TC40H193F (TOSHIBA) FLAT PACKAGE

C-MOS PRESETTABLE SYNCHRONOUS 4-BIT UP/DOWN COUNTER
– TOP VIEW –


B (DATA B) IN 1
QB OUT 2
QA OUT 3
TDN (DOWN CLOCK) IN 4
TUP (UP CLOCK) IN 5
QC OUT 6
QD OUT 7
8 GND
VDD (+2to+8V) 16
15 A (DATA A) IN
14 RD (RESET) IN
13 BRW (BORROW) OUT
12 CO (CARRY) OUT
11 PE (PRESET ENABLE) IN
10 C (DATA C) IN
9 D (DATA D) IN


11
PE
15 A
1 B
10 C
9 D
5 TUP
4 TDN
RD
14
QA 3
QB 2
QC 6
QD 7
CO 12
BRW 13

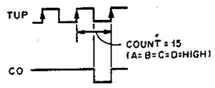
CONTROL INPUTS				MODE
RD	PE	TUP	TDN	
1	X	X	X	RESET TO ZERO
0	0	X	X	PRESET
0	1	⎍	1	UP COUNT
0	1	1	⎍	DOWN COUNT
0	1	1	1	NO COUNT

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE.

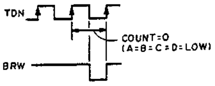
COUNT	OUTPUTS			
	QD	QC	QB	QA
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0	0	1
10	1	0	1	0
11	1	0	1	1
12	1	1	0	0
13	1	1	0	1
14	1	1	1	0
15	1	1	1	1

UP COUNT
DOWN COUNT

$CO = \overline{\overline{TUP} \cdot QA \cdot QB \cdot QC \cdot QD}$

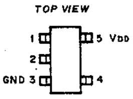

TUP
COUNT = 15
(A=B=C=D=HIGH)
CO

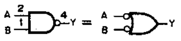
$BRW = \overline{\overline{TDN} \cdot \overline{QA} \cdot \overline{QB} \cdot \overline{QC} \cdot \overline{QD}}$


TDN
COUNT=0
(A=B=C=D=LOW)
BRW

TC4S11F (TOSHIBA) CHIP PACKAGE

C-MOS 2-INPUT NAND GATE


TOP VIEW
1
2
GND 3
5 VDD
4



$Y = \overline{A \cdot B} = \overline{A} + \overline{B}$

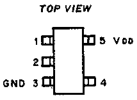
A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

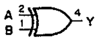
0 ; LOW LEVEL
1 ; HIGH LEVEL

TYPE	VDD
7S00F 7S00FU	+2 to +6V
4S11F 4SU11F	+3 to +18V

TC4S30F (TOSHIBA) CHIP PACKAGE

C-MOS 2-INPUT EXCLUSIVE OR GATE


TOP VIEW
1
2
GND 3
5 VDD
4



$Y = \overline{A} \cdot B + A \cdot \overline{B}$

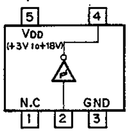
A	B	Y
0	0	0
0	1	1
1	0	1
1	1	0

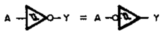
0 ; LOW LEVEL
1 ; HIGH LEVEL

TYPE	VDD
7S86FU	+2 to +6V
4S30F	+3 to +18V

TC4S584F (TOSHIBA) FLAT PACKAGE

C-MOS SCHMITT TRIGGER INVERTER
– TOP VIEW –


5
4
VDD
(+3V to+18V)
N.C
GND
1
2
3



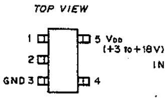
$Y = \overline{A}$

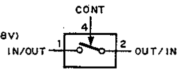
A	Y
0	1
1	0

0 ; LOW LEVEL
1 ; HIGH LEVEL

TC4S66F (TOSHIBA) CHIP PACKAGE

C-MOS BILATERAL ANALOG SWITCH


TOP VIEW
1
2
GND 3
5 VDD
(+3 to +18V)
4

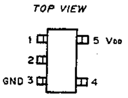

CONT
4
IN/OUT
1
2
OUT/IN

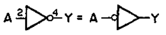
CONT	SWITCH
0	OFF
1	ON

0 ; LOW LEVEL
1 ; HIGH LEVEL

SC7S04F (MOTOROLA) CHIP PACKAGE
TC4S69F (TOSHIBA) CHIP PACKAGE
TC4SU69F (TOSHIBA) CHIP PACKAGE
TC7S04F (TOSHIBA) CHIP PACKAGE
TC7SH04FU (TOSHIBA) CHIP PACKAGE
TC7SU04F (TOSHIBA) CHIP PACKAGE

C-MOS INVERTER
- TOP VIEW -


TOP VIEW
1
2
GND 3
5 VDD
4



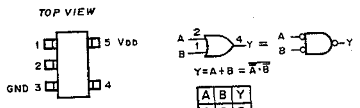
$Y = \overline{A}$

A	Y
0	1
1	0

0; LOW LEVEL
1; HIGH LEVEL

TYPE	VDD
7S04F 7SU04F	+2 to +6V
4S69F 4SU69F	+3 to +18V

TC4S71F (TOSHIBA) CHIP PACKAGE
C-MOS 2-INPUT OR GATE

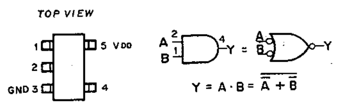

TOP VIEW
1
2
GND 3
5 VDD
4
A
B
2
1
4
Y =
A
B
Y
Y=A+B = $\overline{\overline{A}\cdot\overline{B}}$

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

0 ; LOW LEVEL
1 ; HIGH LEVEL

TYPE	VDD
7S32F 7S32FU	+2 to +6V
4S71F	+3 to +18V

TC4S81F (TOSHIBA) CHIP PACKAGE
TC7S08F (TOSHIBA) CHIP PACKAGE
C-MOS 2-INPUT AND GATE

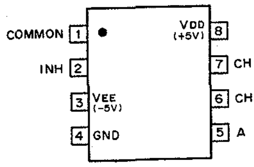

TOP VIEW
1
2
GND 3
5 VDD
4
A
B
2
1
4
Y =
A
B
Y
Y = A·B = $\overline{\overline{A}+\overline{B}}$

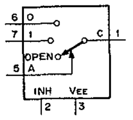
A	B	Y
0	0	0
0	1	0
1	0	0
1	1	1

0; LOW LEVEL
1; HIGH LEVEL

TYPE	VDD
7S08F 7S08FU	+2 to +6V
4S81F 14S81F	+3 to +18V

TC4W53F (TOSHIBA) FLAT PACKAGE
C-MOS 2-CHANNEL MULTIPLEXER/DEMULTIPLEXER
– TOP VIEW –

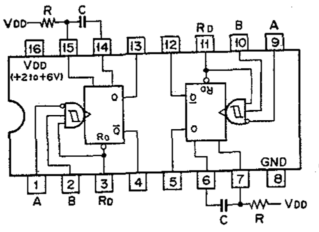

COMMON 1
INH 2
3 VEE (-5V)
4 GND
VDD (+5V) 8
7 CH1
6 CH0
5 A


6 0
7 1
5 A
OPEN
C 1
INH
VEE
2
3

CONT. INPUT		ON CHANNEL
INH	A	
0	0	0
0	1	1
1	X	OPEN

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE

TC74HC221AF (TOSHIBA) FLAT PACKAGE
C-MOS MONOSTABLE MULTIVIBRATOR WITH SCHMITT TRIGGER INPUT
– TOP VIEW –

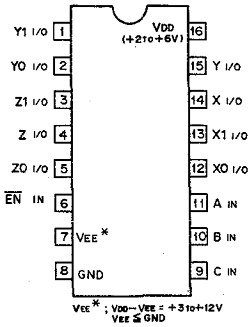

VDD
R
C
RD
B
A
16
15
14
13
12
11
10
9
VDD (+2to+6V)
Q
$\overline{Q}$
RD
GND
1
2
3
4
5
6
7
8
A
B
RD
C
R
VDD

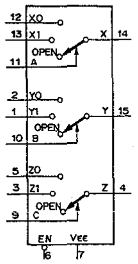
INPUTS			OUTPUTS	
RD	A	B	Q	$\overline{Q}$
0	X	X	0	1
X	1	X	0	1
X	X	0	0	1
1	0	↑	⎍	⊔
1	↓	1	⎍	⊔
↑	0	1	⎍	⊔

0;LOW LEVEL
1;HIGH LEVEL
X;DON'T CARE

OUTPUT PULSE WIDTH=0.7CR

TC74HC4053AF (TOSHIBA) FLAT PACKAGE
C-MOS TRIPLE 2-CHANNEL ANALOG MULTIPLEXER/DEMULTIPLEXER
– TOP VIEW –

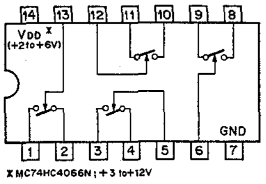

Y1 I/O 1
Y0 I/O 2
Z1 I/O 3
Z I/O 4
Z0 I/O 5
$\overline{EN}$ IN 6
7 VEE *
8 GND
VDD (+2to+6V) 16
15 Y I/O
14 X I/O
13 X1 I/O
12 X0 I/O
11 A IN
10 B IN
9 C IN
VEE * ; VDD−VEE = +3to+12V
VEE ≦ GND

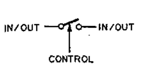

12 X0
13 X1
11 A
OPEN
X 14
2 Y0
1 Y1
10 B
OPEN
Y 15
5 Z0
3 Z1
9 C
OPEN
Z 4
EN
VEE
6
7

CONTROL INPUTS				ON CHANNEL		
EN	SELECT					
	C	B	A			
0	0	0	0	Z0	Y0	X0
0	0	0	1	Z0	Y0	X1
0	0	1	0	Z0	Y1	X0
0	0	1	1	Z0	Y1	X1
0	1	0	0	Z1	Y0	X0
0	1	0	1	Z1	Y0	X1
0	1	1	0	Z1	Y1	X0
0	1	1	1	Z1	Y1	X1
1	X	X	X	OPEN		

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE

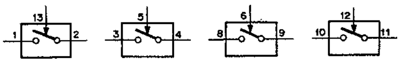
TC74HC4066AFS (TOSHIBA) FLAT PACKAGE
C-MOS BILATERAL ANALOG SWITCH
– TOP VIEW –


14
13
12
11
10
9
8
VDD X (+2to+6V)
GND
1
2
3
4
5
6
7
X MC74HC4066N ; +3 to+12V

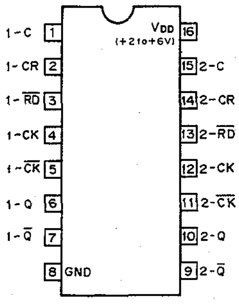

IN/OUT
IN/OUT
CONTROL

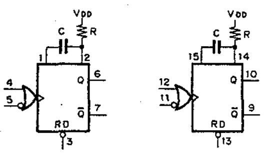
CONTROL	SWITCH
0	OFF
1	ON

0;LOW LEVEL
1;HIGH LEVEL

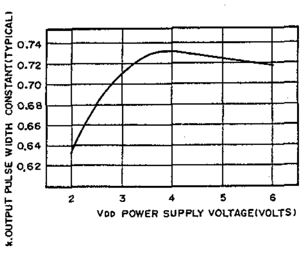

13
1
2
5
3
4
6
8
9
12
10
11

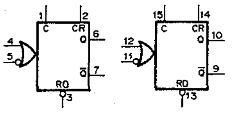
TC74HC4538AF (TOSHIBA) FLAT PACKAGE
C - MOS DUAL RETRIGGERABLE / NON - RETRIGGERABLE MONOSTABLE MULTIVIBRATOR
– TOP VIEW –


1-C 1
1-CR 2
1-$\overline{RD}$ 3
1-CK 4
1-$\overline{CK}$ 5
1-Q 6
1-$\overline{Q}$ 7
8 GND
VDD (+2to+6V) 16
15 2-C
14 2-CR
13 2-$\overline{RD}$
12 2-CK
11 2-$\overline{CK}$
10 2-Q
9 2-$\overline{Q}$

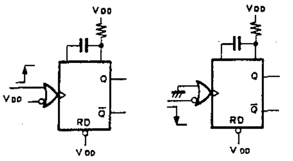

VDD
C
R
1
2
4
5
Q 6
$\overline{Q}$ 7
RD
3
VDD
C
R
15
14
12
11
Q 10
$\overline{Q}$ 9
RD
13

OUTPUT PULSE WIDTH= k·C·R

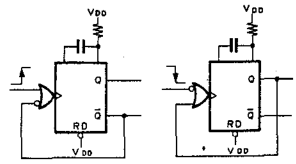



1
2
C
CR
4
5
Q 6
$\overline{Q}$ 7
RD
3
15
14
C
CR
12
11
Q 10
$\overline{Q}$ 9
RD
13

RETRIGGERABLE M.M.V

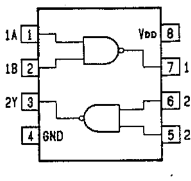

VDD
VDD
Q
$\overline{Q}$
RD
VDD
VDD
Q
$\overline{Q}$
RD
VDD

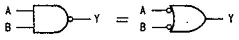
NON-RETRIGGERABLE M.M.V


VDD
Q
$\overline{Q}$
RD
VDD
VDD
Q
$\overline{Q}$
RD
VDD

TC7W00F (TOSHIBA) FLAT PACKAGE

C-MOS 2-INPUT NAND GATE
- TOP VIEW -


1A
1
1B
2
2Y
3
4
GND
VDD
8
7
1Y
6
2B
5
2A



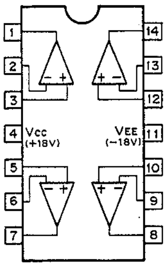
$Y=\overline{A\cdot B}=\overline{A}+\overline{B}$

A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

0 ; LOW LEVEL
1 : HIGH LEVEL

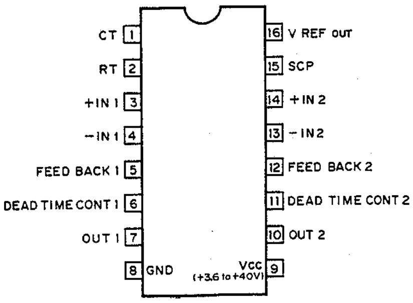
TL064CNS (TI) FLAT PACKAGE

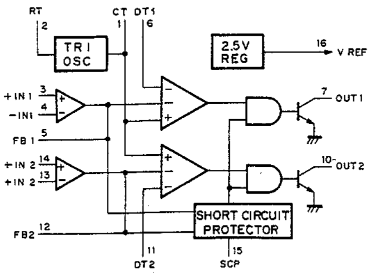
OPERATIONAL AMPLIFIER
(J FET INPUT)
- TOP VIEW -


1
2
3
4
Vcc
(+18V)
5
6
7
14
13
12
11
VEE
(−18V)
10
9
8

TL1451ACNS (TI) FLAT PACKAGE

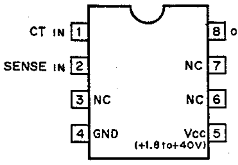
DUAL PWM POWER CONTROLLER
- TOP VIEW -

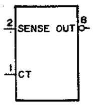

CT 1
RT 2
+IN 1 3
−IN 1 4
FEED BACK 1 5
DEAD TIME CONT 1 6
OUT 1 7
8 GND
16 V REF OUT
15 SCP
14 +IN 2
13 −IN 2
12 FEED BACK 2
11 DEAD TIME CONT 2
10 OUT 2
VCC (+3.6 to +40V) 9

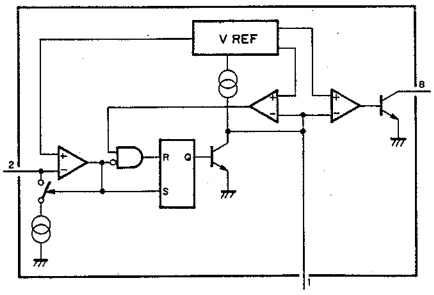

RT
2
CT
1
DT1
6
TRI OSC
2.5V REG
16
V REF
+IN 1
3
−IN1
4
FB 1
5
+IN 2
14
+IN 2
13
FB2
12
7
OUT 1
10
OUT 2
SHORT CIRCUIT PROTECTOR
11
DT2
15
SCP

TL7700CPS (TI) FLAT PACKAGE

VARIABLE SUPPLY VOLTAGE SUPERVISOR
- TOP VIEW -

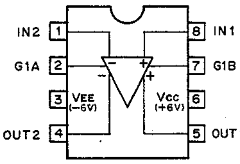

CT IN 1
SENSE IN 2
3 NC
4 GND
8 OUT
NC 7
NC 6
Vcc (+1.8 to +40V) 5


2
SENSE OUT
8
1
CT


V REF
8
2
R
Q
S
1

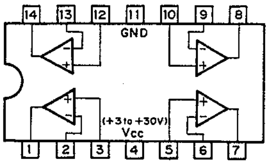
UPC1663G (NEC) FLAT PACKAGE

WIDEBAND VIDEO AMPLIFIER
- TOP VIEW -


IN2 1
G1A 2
3 VEE (−6V)
OUT2 4
8 IN1
7 G1B
Vcc (+6V) 6
5 OUT1

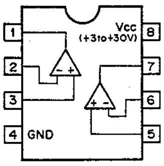
UPC324G2 (NEC) FLAT PACKAGE

QUAD OPERATIOAL AMPLIFIERS
- TOP VIEW -


14
13
12
11
10
9
8
GND
(+3 to +30V)
Vcc
1
2
3
4
5
6
7

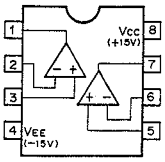
UPC358G2 (NEC) FLAT PACKAGE

DUAL OPERATIONAL AMPLIFIERS
- TOP VIEW -

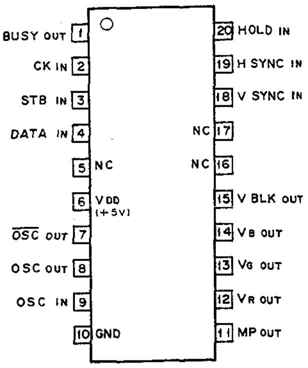

1
2
3
4 GND
Vcc (+3 to +30V) 8
7
6
5

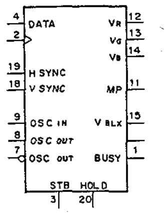
UPC4572G2 (NEC) FLAT PACKAGE

OPERATIONAL AMPLIFIER (WIDE BAND, LOW NOISE)
- TOP VIEW -


1
2
3
4 VEE (−15V)
Vcc (+15V) 8
7
6
5

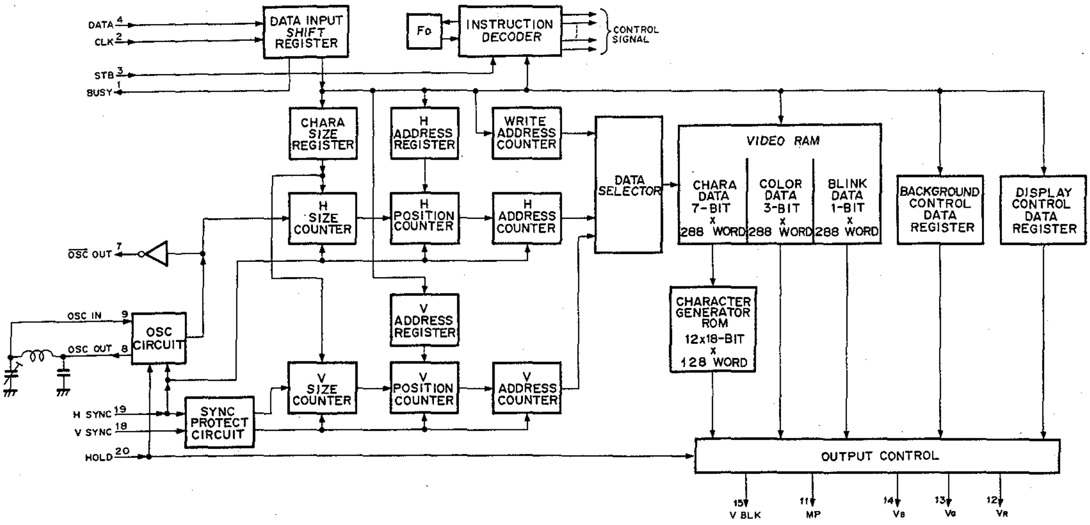
UPD6451AGT (NEC) FLAT PACKAGE
C-MOS CHARACTER DISPLAY CONTROLLER
– TOP VIEW –


BUSY OUT 1
CK IN 2
STB IN 3
DATA IN 4
5 NC
6 VDD (+5V)
$\overline{OSC}$ OUT 7
OSC OUT 8
OSC IN 9
10 GND
20 HOLD IN
19 H SYNC IN
18 V SYNC IN
NC 17
NC 16
15 V BLK OUT
14 VB OUT
13 VG OUT
12 VR OUT
11 MP OUT

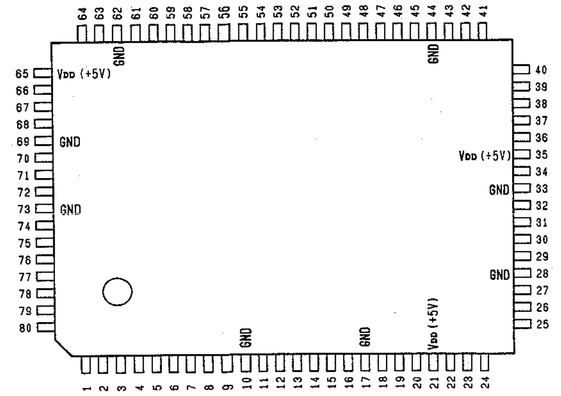

4 DATA
2
19 H SYNC
18 V SYNC
9 OSC IN
8 OSC OUT
7 OSC OUT
VR 12
VG 13
VB 14
MP 11
V BLK 15
BUSY 1
STB 3
HOLD 20

INPUT
CK ; CLOCK
DATA ; CONTROL DATA
HOLD ; SYSTEM DISABLE
H SYNC ; HORIZONTAL SYNC
OSC IN ; OSCILLATOR
STB ; STROBE
V SYNC ; VERTICAL SYNC

OUTPUT
BUSY ; BUSY
MP ; MASK PULSE
OSC OUT ; OSCILLATOR
$\overline{OSC}$ OUT ; OSCILLATOR
V BLK ; VERTICAL BLANKING
V_B, V_G, V_R ; B, G, R, CHARACTER DATA


DATA 4
CLK 2
STB 3
BUSY
DATA INPUT SHIFT REGISTER
Fo
INSTRUCTION DECODER
CONTROL SIGNAL
CHARA SIZE REGISTER
H ADDRESS REGISTER
WRITE ADDRESS COUNTER
DATA SELECTOR
VIDEO RAM
CHARA DATA 7-BIT x 288 WORD
COLOR DATA 3-BIT x 288 WORD
BLINK DATA 1-BIT x 288 WORD
BACKGROUND CONTROL DATA REGISTER
DISPLAY CONTROL DATA REGISTER
H SIZE COUNTER
H POSITION COUNTER
H ADDRESS COUNTER
$\overline{OSC}$ OUT 7
OSC IN 9
OSC OUT 8
OSC CIRCUIT
V ADDRESS REGISTER
CHARACTER GENERATOR ROM 12x18-BIT x 128 WORD
V SIZE COUNTER
V POSITION COUNTER
V ADDRESS COUNTER
H SYNC 19
V SYNC 18
SYNC PROTECT CIRCUIT
HOLD 20
OUTPUT CONTROL
15 V BLK
11 MP
14 VB
13 VG
12 VR

UPC2372GF-3B9 (NEC) FLAT PACKAGE
3-CH PROCESS AMP & AGC
– TOP VIEW –



(VDD = +5V)

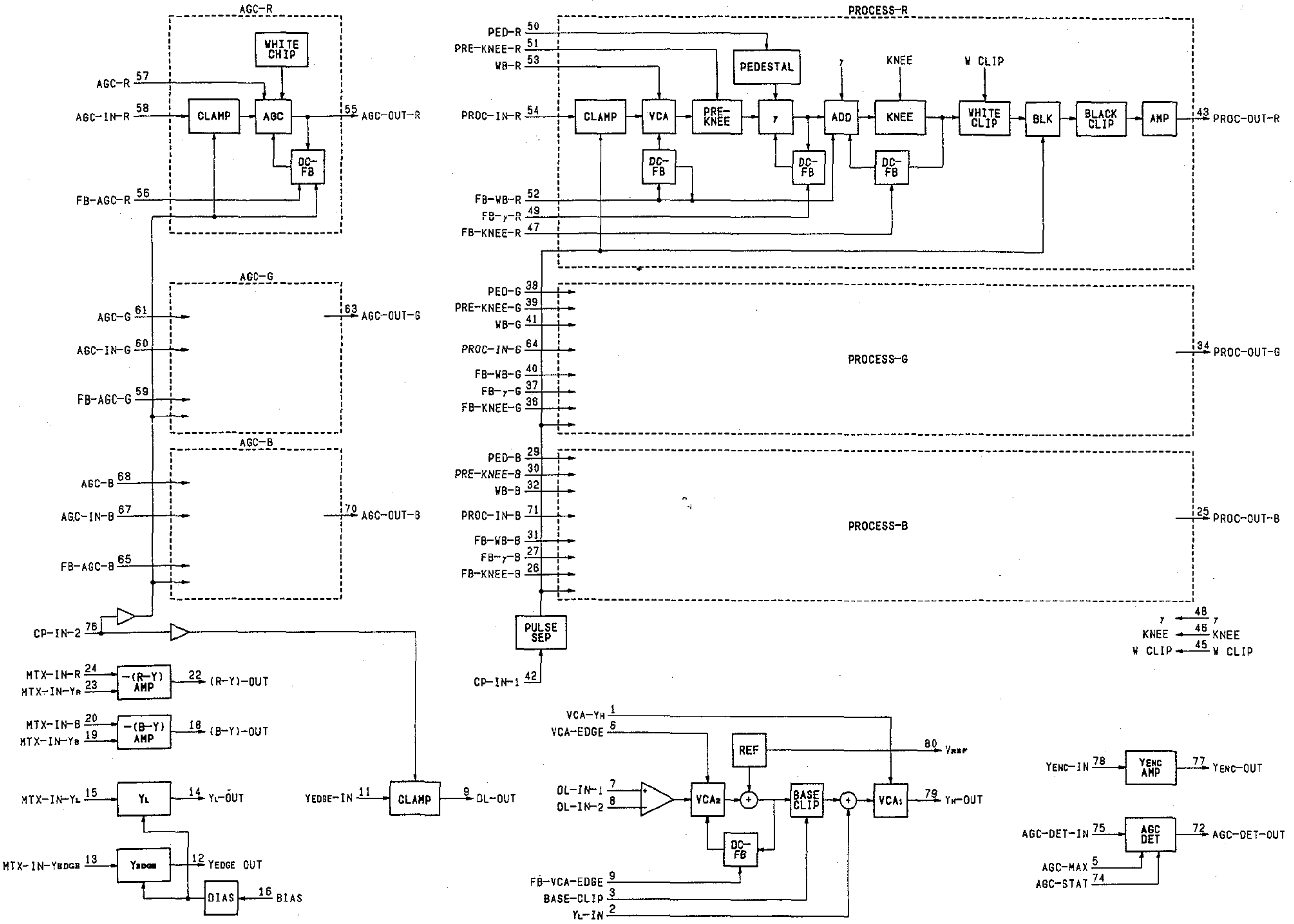
PIN No.	I/O	SYMBOL	PIN No.	I/O	SYMBOL	PIN No.	I/O	SYMBOL	PIN No.	I/O	SYMBOL
1	I	VCA-YH	21	–	VDD	41	I	WB-G	61	I	AGC-G
2	I	YL-IN	22	O	(R-Y)-OUT	42	I	CP-IN-1	62	–	GND
3	I	BASE-CLIP	23	I	MTX-IN-YR	43	O	PROC-OUT-R	63	O	AGC-OUT-G
4	I	FB-VCA-EDGE	24	I	MTX-IN-R	44	–	GND	64	I	PROC-IN-G
5	I	AGC-MAX	25	O	PROC-OUT-B	45	I	WCLIP	65	I	FB-AGC-B
6	I	VCA-EDGE	26	I	FB-KNEE-B	46	I	KNEE	66	–	VDD
7	I	DL-IN1	27	I	FB-γ-B	47	I	FB-KNEE-R	67	I	AGC-IN-B
8	I	DL-IN2	28	–	GND	48	I	γ	68	I	AGC-B
9	O	DL-OUT	29	I	PED-B	49	I	FB-γ-R	69	–	GND
10	–	GND	30	I	Pre-KNEE-B	50	I	PED-R	70	O	AGC-OUT-B
11	I	YEDGE IN	31	I	FB-WB-B	51	I	Pre-KNEE-R	71	I	PROC-IN-B
12	O	YEDGE OUT	32	I	WB-B	52	I	FB-WB-R	72	O	AGC-DET-OUT
13	I	MTX-IN-YEDGE	33	–	GND	53	I	WB-R	73	–	GND
14	O	YL-OUT	34	O	PROC-OUT-G	54	I	PROC-IN-R	74	I	AGC STAT
15	I	MIX-IN-YL	35	–	VDD	55	O	AGC-OUT-R	75	I	AGC-DET-IN
16	O	BIAS	36	I	FB-KNEE-G	56	I	FB-AGC-R	76	I	CP-IN-2
17	–	GND	37	I	FB-γ-G	57	I	AGC-R	77	O	YENC-OUT
18	O	(B-Y)-OUT	38	I	PED-G	58	I	AGC-IN-R	78	I	YENC-IN
19	I	MTX-IN-YB	39	I	Pre-KNEE-G	59	I	FB-AGC-G	79	O	YH-OUT
20	I	MTX-IN-B	40	I	FB-WB-G	60	I	AGC-IN-G	80	O	VREF

INPUT

AGC STAT ; AGC THRESHOLD CONTROL
AGC-B ; AGC GAIN CONTROL FOR B-CH
AGC-DET-IN ; AGC DETECT
AGC-G ; AGC GAIN CONTROL FOR G-CH
AGC-IN-B ; B-CH AGC
AGC-IN-G ; G-CH AGC
AGC-IN-R ; R-CH AGC
AGC-MAX ; AGC MAX GAIN CONTROL
AGC-R ; AGC GAIN CONTROL FOR R-CH
BASE-CLIP ; BASE CLIP QUANTITY CONTROL FOR HORIZONTAL EDGE COMPENSATION SIGNAL
CP-IN-1 ; CLAMP PULSE/BLANKING PULSE
CP-IN-2 ; CLAMP PULSE FOR AGC CIRCUIT
DL-IN1 ; NON-INVERT INPUT FOR HORIZONTAL EDGE COMPENSATION DIFFERENTIAL AMPLIFIER
DL-IN2 ; INVERT INPUT FOR HORIZONTAL EDGE COMPENSATION DIFFERENTIAL AMPLIFIER
FB-AGC-B ; DC FEEDBACK FOR B-CH AGC
FB-AGC-G ; DC FEEDBACK FOR G-CH AGC
FB-AGC-R ; DC FEEDBACK FOR R-CH AGC
FB-KNEE-B ; DC FEEDBACK FOR B-CH KNEE
FB-KNEE-G ; DC FEEDBACK FOR G-CH KNEE
FB-KNEE-R ; DC FEEDBACK FOR R-CH KNEE
FB-VCA-EDGE ; CAPACITOR FOR DC FEEDBACK
FB-WB-B ; DC FEEDBACK FOR B-CH WHITE BALANCE
FB-WB-G ; DC FEEDBACK FOR G-CH WHITE BALANCE
FB-WB-R ; DC FEEDBACK FOR R-CH WHITE BALANCE
FB-γ-B ; DC FEEDBACK FOR B-CH γ
FB-γ-G ; DC FEEDBACK FOR G-CH γ
FB-γ-R ; DC FEEDBACK FOR R-CH γ
KNEE ; KNEE CONTROL
MTX-IN-B ; B-Y SIGNAL MATRIX INPUT
MTX-IN-R ; R-Y SIGNAL MATRIX INPUT
MTX-IN-YB ; B-Y SIGNAL MATRIX INPUT
MTX-IN-YEDGE ; LUMINANCE SIGNAL MATRIX FOR HORIZONTAL EDGE COMPENSATION
MTX-IN-YL ; LUMINANCE SIGNAL MATRIX
MTX-IN-YR ; R-Y SIGNAL MATRIX
PED-B ; PEDESTAL CONTROL FOR B-CH
PED-G ; PEDESTAL CONTROL FOR G-CH
PED-R ; PEDESTAL CONTROL FOR R-CH
Pre-KNEE-B ; Pre-KNEE CONTROL FOR B-CH
Pre-KNEE-G ; Pre-KNEE CONTROL FOR G-CH
Pre-KNEE-R ; Pre-KNEE CONTROL FOR R-CH
PROC-IN-B ; B-CH PROCESS
PROC-IN-G ; G-CH PROCESS
PROC-IN-R ; R-CH PROCESS
VCA-EDGE ; OUTPUT LEVEL CONTROL FOR HORIZONTAL EDGE COMPENSATED LUMINANCE SIGNAL
VCA-YH ; HORIZONTAL EDGE COMPENSATED OUTPUT LEVEL CONTROL
WB-B ; WHITE BALANCE CONTROL FOR B-CH
WB-G ; WHITE BALANCE CONTROL FOR G-CH
WB-R ; WHITE BALANCE CONTROL FOR R-CH
WCLIP ; WHITE CLIP LEVEL CONTROL
YEDGE IN ; LUMINANCE SIGNAL FOR HORIZONTAL EDGE COMPENSATION
YENC-IN ; LUMINANCE SIGNAL AMPLIFIER
YL-IN ; INPUT FOR LUMINANCE SIGNAL
γ ; γ CONTROL

OUTPUT

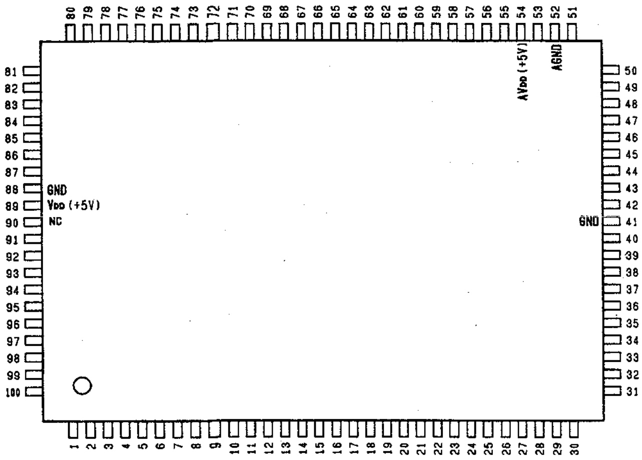
AGC-DET-OUT ; AGC DETECT
AGC-OUT-B ; B-CH AGC
AGC-OUT-G ; G-CH AGC
AGC-OUT-R ; R-CH AGC
BIAS ; BIAS
DL-OUT ; HORIZONTAL EDGE COMPENSATION SIGNAL FOR LUMINANCE SIGNAL
PROC-OUT-B ; B-CH PROCESS
PROC-OUT-G ; G-CH PROCESS
PROC-OUT-R ; R-CH PROCESS
VREF ; VREF (2.0V)
YEDGE-OUT ; MATRIX OF LUMINANCE SIGNAL FOR HORIZONTAL EDGE COMPENSATION
YENC-OUT ; LUMINANCE SIGNAL AMPLIFIER
YH-OUT ; OUTPUT OF APARTURE COMPENSATION CIRCUIT
YL-OUT ; LUMINANCE SIGNAL MATRIX OUTPUT
(B-Y)-OUT ; B-Y SIGNAL MATRIX
(R-Y)-OUT ; R-Y SIGNAL MATRIX


AGC-R
WHITE CHIP
AGC-R 57
AGC-IN-R 58
CLAMP
AGC
55 AGC-OUT-R
DC-FB
FB-AGC-R 56
AGC-G
AGC-G 61
AGC-IN-G 60
FB-AGC-G 59
63 AGC-OUT-G
AGC-B
AGC-B 68
AGC-IN-B 67
FB-AGC-B 65
70 AGC-OUT-B
CP-IN-2 76
MTX-IN-R 24
MTX-IN-YR 23
-(R-Y) AMP
22 (R-Y)-OUT
MTX-IN-B 20
MTX-IN-YB 19
-(B-Y) AMP
18 (B-Y)-OUT
MTX-IN-YL 15
YL
14 YL-OUT
MTX-IN-YEDGE 13
YEDGE
12 YEDGE OUT
DIAS
16 BIAS
YEDGE-IN 11
CLAMP
9 DL-OUT
PROCESS-R
PED-R 50
PRE-KNEE-R 51
WB-R 53
PROC-IN-R 54
CLAMP
VCA
PRE-KNEE
PEDESTAL
γ
ADD
KNEE
WHITE CLIP
BLK
BLACK CLIP
AMP
43 PROC-OUT-R
γ
KNEE
W CLIP
DC-FB
DC-FB
DC-FB
FB-WB-R 52
FB-γ-R 49
FB-KNEE-R 47
PED-G 38
PRE-KNEE-G 39
WB-G 41
PROC-IN-G 64
FB-WB-G 40
FB-γ-G 37
FB-KNEE-G 36
PROCESS-G
34 PROC-OUT-G
PED-B 29
PRE-KNEE-B 30
WB-B 32
PROC-IN-B 71
FB-WB-B 31
FB-γ-B 27
FB-KNEE-B 26
PROCESS-B
25 PROC-OUT-B
PULSE SEP
CP-IN-1 42
γ 48 γ
KNEE 46 KNEE
W CLIP 45 W CLIP
VCA-YH 1
VCA-EDGE 6
REF
80 VREF
DL-IN-1 7
DL-IN-2 8
VCA2
BASE CLIP
VCA1
79 YH-OUT
DC-FB
FB-VCA-EDGE 9
BASE-CLIP 3
YL-IN 2
YENC-IN 78
YENC AMP
77 YENC-OUT
AGC-DET-IN 75
AGC DET
72 AGC-DET-OUT
AGC-MAX 5
AGC-STAT 74

IC

CXP80624 (SONY)

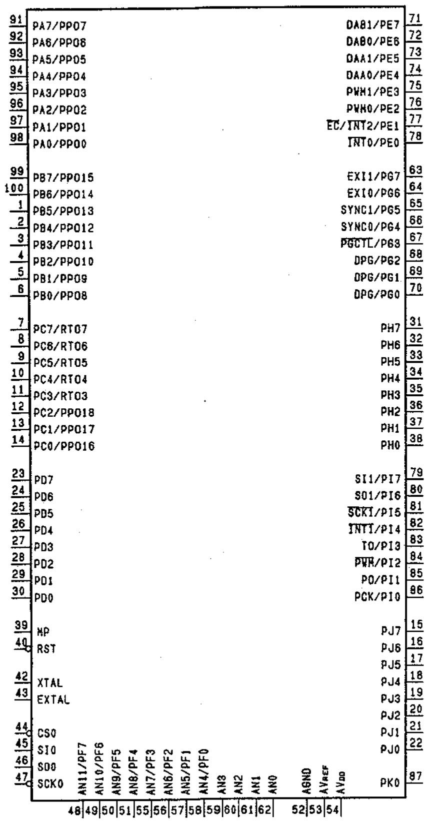
C-MOS 8-BIT 1-CHIP MICROCOMPUTER
- TOP VIEW -



AVDD (+5V)
AGND
GND
VDD (+5V)
NC
GND
1 … 100

(VDD = AVDD = + 5V)

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	O	PB5/PPO13	26	I/O	PD4	51	I/O	PF4/AN8	76	O	PE2/PWM0
2	O	PB4/PPO12	27	I/O	PD3	52	–	AGND	77	I	PE1/$\overline{EC}$/INT2
3	O	PB3/PPO11	28	I/O	PD2	53	I	AVREF	78	I	PE0/INT0
4	O	PB2/PPO10	29	I/O	PD1	54	–	AVDD	79	I/O	PI7/SI1
5	O	PB1/PPO9	30	I/O	PD0	55	I	PF3/AN7	80	I/O	PI6/SO1
6	O	PB0/PPO8	31	I/O	PH7	56	I	PF2/AN6	81	I/O	PI5/SCK1
7	I/O	PC7/RTO7	32	O	PH6	57	I	PF1/AN5	82	I/O	PI4/INT1
8	I/O	PC6/RTO6	33	O	PH5	58	I	PF0/AN4	83	I/O	PI3/TO
9	I/O	PC5/RTO5	34	O	PH4	59	I	AN3	84	I/O	PI2/PWM
10	I/O	PC4/RTO4	35	O	PH3	60	I	AN2	85	I/O	PI1/PO
11	I/O	PC3/RTO3	36	O	PH2	61	I	AN1	86	I	PI0/PCK
12	I/O	PC2/PPO18	37	O	PH1	62	I	AN0	87	I	PK0
13	I/O	PC1/PPO17	38	I	PH0	63	I	PG7/EXI1	88	–	GND
14	I/O	PC0/PPO16	39	I	MP	64	I	PG6/EXI0	89	–	VDD
15	I/O	PJ7	40	I/O	$\overline{RST}$	65	I	PG5/SYNC1	90	–	NC
16	I/O	PJ6	41	–	GND	66	I	PG4/SYNC0	91	O	PA7/PPO7
17	I/O	PJ5	42	O	XTAL	67	I	PG3/PBCTL	92	O	PA6/PPO6
18	I/O	PJ4	43	I	EXTAL	68	I	PG2/DPG	93	O	PA5/PPO5
19	I/O	PJ3	44	I	$\overline{CS0}$	69	I	PG1/DFG	94	O	PA4/PPO4
20	I/O	PJ2	45	I	SI0	70	I	PG0/CFG	95	O	PA3/PPO3
21	I/O	PJ1	46	O	SO0	71	O	PE7/DAB1	96	O	PA2/PPO2
22	I/O	PJ0	47	I/O	$\overline{SCK0}$	72	O	PE6/DAB0	97	O	PA1/PPO1
23	I/O	PD7	48	I/O	PF7/AN11	73	O	PE5/DAA1	98	O	PA0/PPO0
24	I/O	PD6	49	I/O	PF6/AN10	74	O	PE4/DAA0	99	O	PB7/PPO15
25	I/O	PD5	50	I/O	PF5/AN9	75	O	PE3/PWM1	100	O	PB6/PPO14



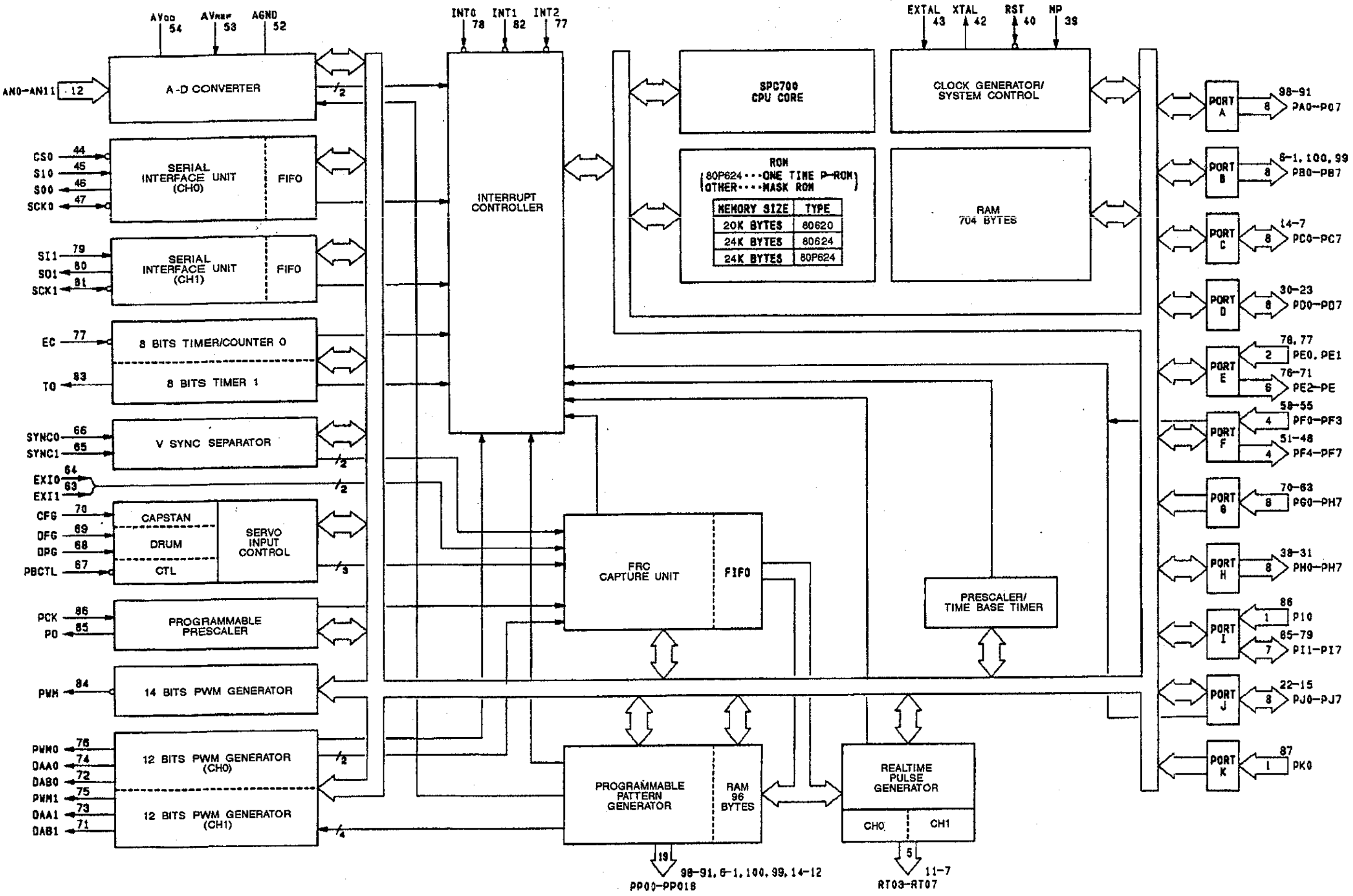
91 PA7/PPO7
92 PA6/PPO6
93 PA5/PPO5
94 PA4/PPO4
95 PA3/PPO3
96 PA2/PPO2
97 PA1/PPO1
98 PA0/PPO0
99 PB7/PPO15
100 PB6/PPO14
1 PB5/PPO13
2 PB4/PPO12
3 PB3/PPO11
4 PB2/PPO10
5 PB1/PPO9
6 PB0/PPO8
7 PC7/RTO7
8 PC6/RTO6
9 PC5/RTO5
10 PC4/RTO4
11 PC3/RTO3
12 PC2/PPO18
13 PC1/PPO17
14 PC0/PPO16
23 PD7
24 PD6
25 PD5
26 PD4
27 PD3
28 PD2
29 PD1
30 PD0
39 MP
40 RST
42 XTAL
43 EXTAL
44 CS0
45 SI0
46 SO0
47 SCK0
DAB1/PE7 71
DAB0/PE6 72
DAA1/PE5 73
DAA0/PE4 74
PWM1/PE3 75
PWM0/PE2 76
EC/INT2/PE1 77
INT0/PE0 78
EXI1/PG7 63
EXI0/PG6 64
SYNC1/PG5 65
SYNC0/PG4 66
PBCTL/PG3 67
DPG/PG2 68
DPG/PG1 69
DPG/PG0 70
PH7 31
PH6 32
PH5 33
PH4 34
PH3 35
PH2 36
PH1 37
PH0 38
SI1/PI7 79
SO1/PI6 80
SCK1/PI5 81
INT1/PI4 82
TO/PI3 83
PWM/PI2 84
PO/PI1 85
PCK/PI0 86
PJ7 15
PJ6 16
PJ5 17
PJ4 18
PJ3 19
PJ2 20
PJ1 21
PJ0 22
PK0 87
AN11/PF7 48
AN10/PF6 49
AN9/PF5 50
AN8/PF4 51
AN7/PF3 55
AN6/PF2 56
AN5/PF1 57
AN4/PF0 58
AN3 59
AN2 60
AN1 61
AN0 62
AGND 52
AVREF 53
AVDD 54

INPUT
AN0 – AN11 ; A-D CONVERTOR'S ANALOG INPUTS
AVREF ; A-D CONVERTOR'S REFERENCE VOLTAGE INPUT
CFG ; CAPSTAN FG INPUT
CS0 ; SERIAL INTERFACE CHANNLE 0 SELECT INPUT
DPG,DFG ; DURM PG AND FG INPUTS
EC ; EVENT CONTROL INPUT FOR TIMER/COUNTER
EXI0,EXI1 ; FRC CAPTURE UNIT'S EXTERNAL INPUTS
EXTAL ; CRYSTAL CONNECTION OR EXTERNAL CLOCK INPUT FOR SYSTEM CLOCK GENERATOR
INT0 – INT2 ; INTERRUPT REQUEST INPUTS (FALLING EDGE ACTIVE)
MP ; MICROPROCESSOR MODE INPUT
PBCTL ; PLAYBACK CTL PULSE INPUT
PCK ; PRESCALER'S EXTERNAL CLOCK INPUT
PE0,PE1 ; INPUTS OF PORT E (PE2 – PE7 ; OUTPUTS)
PF0 – PF3 ; INPUTS OF PORT F (PF4 – PF7 ; OUTPUTS)
PG0 – PG7 ; INPUTS OF PORT G
PI0 ; INPUT OF PORT I (PI1 – PI7 ; INPUTS/OUTPUTS)
PK0 ; INPUT OF PORT K
SI0,SI1 ; SERIAL DATA INPUTS (CHANNLE 0 AND CHANNLE 1)
SYNC0,SYNC1 ; COMPOSITE SYNC SIGNAL INPUTS

OUTPUT
DAA0,DAB0 ; DA GATE PULSE OUTPUTS (12 BITS PWM CHANNLE 0)
DAA1,DAB1 ; DA GATE PULSE OUTPUTS (12 BITS PWM CHANNLE 1)
PA0 – PA7 ; OUTPUTS OF PORT A
PB0 – PB7 ; OUTPUTS OF PORT B
PE2 – PE7 ; OUTPUTS OF PORT E (PE0, PE1 ; INPUTS)
PF4 – PF7 ; OUTPUTS OF PORT F (PF0 – PF3 ; INPUTS)
PH0 – PH7 ; OUTPUTS OF PORT H (N-CH OPEN DRAIN OUTPUTS)
PPO0 – PPO18 ; PROGRAMMABLE PATTERN GENERATOR OUTPUS
PO ; PRESCALER OUTPUT
PWM ; PULSE WIDTH MODULATION OUTPUT
PWM0,PWM1 ; 12 BITS PULSE WIDTH MODULATION OUTPUTS (CHANNLE 0 AND CHANNLE 1)
RTO3 – RTO7 ; REALTIME PULSE GENERATOR OUTPUTS
SO0,SO1 ; SERIAL DATA OUTPUTS (CHANNLE 0 AND CHANNLE 1)
TO ; TIMER/COUNTER OUTPUT (DUTY 50 %)
XTAL ; CRYSTAL CONNECTION

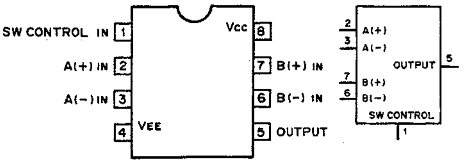
INPUT/OUTPUT
PC0 – PC7 ; INPUTS/OUTPUTS OF PROT C (BIT PROGRAMMABLE)
PD0 – PD7 ; INPUTS/OUTPUTS OF PROT D (4 BITS PROGRAMMABLE)
PI1 – PI7 ; INPUTS/OUTPUTS OF PROT I (BIT PROGRAMMABLE, PI0 ; INPUT)
PJ0 – PJ7 ; INPUTS/OUTPUTS OF PROT J (BIT PROGRAMMABLE)
RST ; SYSTEM RESET INPUT AND POWER ON RESET OUTPUT
SCK0,SCK1 ; SERIAL CLOCK INPUTS/OUTPUTS (CHANNLE 0 AND CHANNLE 1)

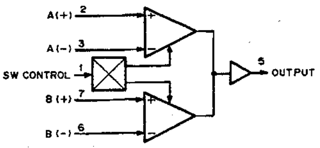
OTHER
AGND ; A-D CONVERTOR'S GROUND
AVDD (+ 5V) ; A-D CONVERTOR'S VDD


AVDD 54
AVREF 53
AGND 52
AN0–AN11 12
A-D CONVERTER
CS0 44
SI0 45
SO0 46
SCK0 47
SERIAL INTERFACE UNIT (CH0)
FIFO
SI1 79
SO1 80
SCK1 81
SERIAL INTERFACE UNIT (CH1)
EC 77
8 BITS TIMER/COUNTER 0
TO 83
8 BITS TIMER 1
SYNC0 66
SYNC1 65
V SYNC SEPARATOR
EXI0 64
EXI1 63
CFG 70
DFG 69
DPG 68
PBCTL 67
CAPSTAN
DRUM
CTL
SERVO INPUT CONTROL
PCK 86
PO 85
PROGRAMMABLE PRESCALER
PWM 84
14 BITS PWM GENERATOR
PWM0 76
DAA0 74
DAB0 72
PWM1 75
DAA1 73
DAB1 71
12 BITS PWM GENERATOR (CH0)
12 BITS PWM GENERATOR (CH1)
INT0 78
INT1 82
INT2 77
INTERRUPT CONTROLLER
FRC CAPTURE UNIT
FIFO
PROGRAMMABLE PATTERN GENERATOR
RAM 96 BYTES
19
98–91, 8–1, 100, 99, 14–12
PP00–PP018
REALTIME PULSE GENERATOR
CH0
CH1
5
11–7
RT03–RT07
PRESCALER/ TIME BASE TIMER
EXTAL 43
XTAL 42
RST 40
MP 39
SPC700 CPU CORE
CLOCK GENERATOR/ SYSTEM CONTROL
ROM
80P624···ONE TIME P-ROM
OTHER····MASK ROM
MEMORY SIZE | TYPE
20K BYTES | 80620
24K BYTES | 80624
24K BYTES | 80P624
RAM 704 BYTES
PORT A 8 98–91 PA0–PA7
PORT B 8 8–1, 100, 99 PB0–PB7
PORT C 8 14–7 PC0–PC7
PORT D 8 30–23 PD0–PD7
PORT E 2 78, 77 PE0, PE1
6 76–71 PE2–PE
PORT F 4 58–55 PF0–PF3
4 51–48 PF4–PF7
PORT G 8 70–63 PG0–PH7
PORT H 8 38–31 PH0–PH7
PORT I 1 86 PI0
7 85–79 PI1–PI7
PORT J 8 22–15 PJ0–PJ7
PORT K 1 87 PK0
2
2
3
2
4

M5203FP (MITSUBISHI) FALT PACKAGE

DUAL OPERATIONAL AMPLIFIERS WITH SWITCHED OUTPUT
- TOP VIEW -

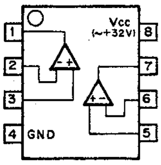

SW CONTROL IN 1
A(+) IN 2
A(−) IN 3
4 VEE
Vcc 8
7 B(+) IN
6 B(−) IN
5 OUTPUT
2 A(+)
3 A(−)
7 B(+)
6 B(−)
OUTPUT 5
SW CONTROL
1


A(+) 2
A(−) 3
SW CONTROL 1
B(+) 7
B(−) 6
5 OUTPUT

	Vcc	VEE
M5201	+ 15V	− 15V
M5203	+ 18V	− 18V

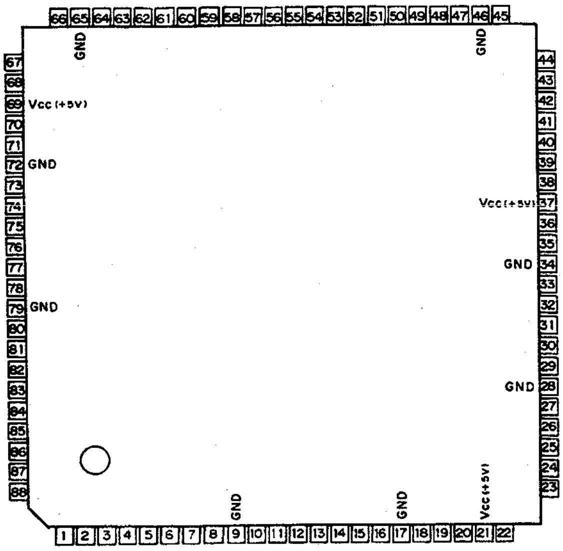
NJM2904M (JRC) FLAT PACKAGE

OPERATIONAL AMPLIFIER
- TOP VIEW -


1
2
3
4 GND
Vcc (~+32V) 8
7
6
5

UPC2372AGK (NEC) FLAT PACKAGE

3-CH PROCESS AMP & AGC
- TOP VIEW -



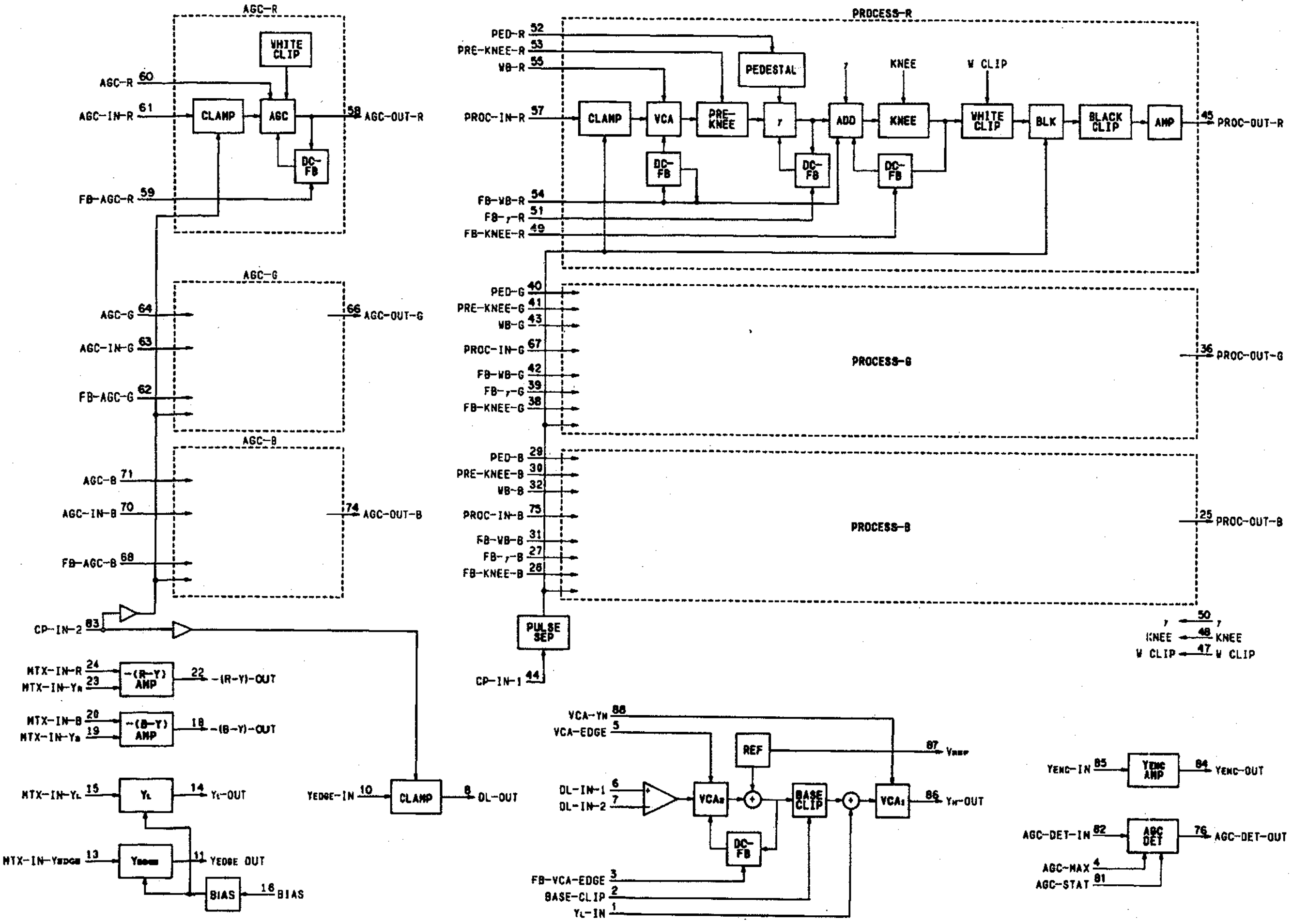
PIN No.	I/O	SYMBOL	PIN No.	I/O	SYMBOL	PIN No.	I/O	SYMBOL	PIN No.	I/O	SYMBOL
1	I	YL-IN	23	I	MTX-IN-YR	45	O	PROC-OUT-R	67	I	PROC-IN-G
2	I	BASE-CLIP	24	I	MTX-IN-R	46	–	GND	68	O	FB-AGC-B
3	O	FB-VCA-EDGE	25	O	PROC-OUT-B	47	I	WCLIP	69	–	Vcc (+ 5V)
4	I	AGC-MAX	26	O	FB-KNEE-B	48	I	KNEE	70	I	AGC-IN-B
5	I	VCA-EDGE	27	O	FB-γ-B	49	O	FB-KNEE-R	71	I	AGC-B
6	I	DL-IN1	28	–	GND	50	I	γ	72	–	GND
7	I	DL-IN2	29	I	PED-B	51	O	FB-γ-R	73	–	N.C.
8	O	DL-OUT	30	I	Pre-KNEE-B	52	I	PED-R	74	O	AGC-OUT-B
9	–	GND	31	O	FB-WB-B	53	I	Pre-KNEE-R	75	I	PROC-IN-B
10	I	YEDGE-IN	32	I	WB-B	54	O	FB-WB-R	76	O	AGC-DET-OUT
11	O	YEDGE-OUT	33	–	N.C.	55	I	WB-R	77	–	N.C.
12	–	N.C.	34	–	GND	56	–	N.C.	78	–	N.C.
13	I	MTX-IN-YEDGE	35	–	N.C.	57	I	PROC-IN-R	79	–	GND
14	O	YL-OUT	36	O	PROC-OUT-G	58	O	AGC-OUT-R	80	–	N.C.
15	I	MTX-IN-YL	37	–	Vcc (+ 5V)	59	O	FB-AGC-R	81	O	AGC STAT
16	O	BIAS	38	O	FB-KNEE-G	60	I	AGC-R	82	I	AGC-DET-IN
17	–	GND	39	O	FB-γ-G	61	I	AGC-IN-R	83	I	CP-IN2
18	O	(B-Y)-OUT	40	I	PED-G	62	O	FB-AGC-G	84	O	YENC-OUT
19	I	MTX-IN-YB	41	I	Pre-KNEE-G	63	I	AGC-IN-G	85	I	YENC-IN
20	I	MTX-IN-B	42	O	FB-WB-G	64	I	AGC-G	86	O	YH-OUT
21	–	Vcc (+ 5V)	43	I	WB-G	65	–	GND	87	O	VREF
22	O	(R-Y)-OUT	44	I	CP-IN1	66	O	AGC-OUT-G	88	I	VCA-YH

INPUT

AGC-B ; AGC GAIN CONTROL FOR B-CH
AGC-DET-IN ; AGC DETECT
AGC-G ; AGC GAIN CONTROL FOR G-CH
AGC-IN-B ; B-CH AGC
AGC-IN-G ; G-CH AGC
AGC-IN-R ; R-CH AGC
AGC-MAX ; AGC MAX GAIN CONTROL
AGC-R ; AGC GAIN CONTROL FOR R-CH
BASE-CLIP ; BASE CLIP QUANTITY CONTROL FOR HORIZONTAL EDGE COMPENSATION SIGNAL
CP-IN-1 ; CLAMP PULSE/BLANKING PULSE
CP-IN-2 ; CLAMP PULSE FOR AGC CIRCUIT
DL-IN1 ; NON-INVERT INPUT FOR HORIZONTAL EDGE COMPENSATION DIFFERENTIAL AMPLIFIER
DL-IN2 ; INVERT INPUT FOR HORIZONTAL EDGE COMPENSATION DIFFERENTIAL AMPLIFIER
KNEE ; KNEE CONTROL
MTX-IN-B ; B-Y SIGNAL MATRIX INPUT
MTX-IN-R ; R-Y SIGNAL MATRIX INPUT
MTX-IN-YB ; B-Y SIGNAL MATRIX INPUT
MTX-IN-YEDGE ; LUMINANCE SIGNAL MATRIX FOR HORIZONTAL EDGE COMPENSATION
MTX-IN-YL ; LUMINANCE SIGNAL MATRIX
MTX-IN-YR ; R-Y SIGNAL MATRIX
PED-B ; PEDESTAL CONTROL FOR B-CH
PED-G ; PEDESTAL CONTROL FOR G-CH
PED-R ; PEDESTAL CONTROL FOR R-CH
Pre-KNEE-B ; Pre-KNEE CONTROL FOR B-CH
Pre-KNEE-G ; Pre-KNEE CONTROL FOR G-CH
Pre-KNEE-R ; Pre-KNEE CONTROL FOR R-CH
PROC-IN-B ; B-CH PROCESS
PROC-IN-G ; G-CH PROCESS
PROC-IN-R ; R-CH PROCESS
VCA-EDGE ; OUTPUT LEVEL CONTROL FOR HORIZONTAL EDGE COMPENSATED LUMINANCE SIGNAL
VCA-YH ; HORIZONTAL EDGE COMPENSATED OUTPUT LEVEL CONTROL
WB-B ; WHITE BALANCE CONTROL FOR B-CH
WB-G ; WHITE BALANCE CONTROL FOR G-CH
WB-R ; WHITE BALANCE CONTROL FOR R-CH
WCLIP ; WHITE CLIP LEVEL CONTROL
YEDGE IN ; LUMINANCE SIGNAL FOR HORIZONTAL EDGE COMPENSATION
YENC-IN ; LUMINANCE SIGNAL AMPLIFIER
YL-IN ; INPUT FOR LUMINANCE SIGNAL
γ ; γ CONTROL

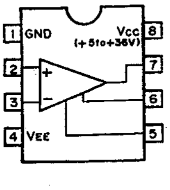
OUTPUT

AGC STAT ; AGC THRESHOLD CONTROL
AGC-DET-OUT ; AGC DETECT
AGC-OUT-B ; B-CH AGC
AGC-OUT-G ; G-CH AGC
AGC-OUT-R ; R-CH AGC
BIAS ; BIAS
DL-OUT ; HORIZONTAL EDGE COMPENSATION SIGNAL FOR LUMINANCE SIGNAL
FB-AGC-B ; DC FEEDBACK FOR B-CH AGC
FB-AGC-G ; DC FEEDBACK FOR G-CH AGC
FB-AGC-R ; DC FEEDBACK FOR R-CH AGC
FB-KNEE-B ; DC FEEDBACK FOR B-CH KNEE
FB-KNEE-G ; DC FEEDBACK FOR G-CH KNEE
FB-KNEE-R ; DC FEEDBACK FOR R-CH KNEE
FB-VCA-EDGE ; CAPACITOR FOR DC FEEDBACK
FB-WB-B ; DC FEEDBACK FOR B-CH WHITE BALANCE
FB-WB-G ; DC FEEDBACK FOR G-CH WHITE BALANCE
FB-WB-R ; DC FEEDBACK FOR R-CH WHITE BALANCE
FB-γ-B ; DC FEEDBACK FOR B-CH γ
FB-γ-G ; DC FEEDBACK FOR G-CH γ
FB-γ-R ; DC FEEDBACK FOR R-CH γ
PROC-OUT-B ; B-CH PROCESS
PROC-OUT-G ; G-CH PROCESS
PROC-OUT-R ; R-CH PROCESS
VREF ; VREF (2.0V)
YEDGE-OUT ; MATRIX OF LUMINANCE SIGNAL FOR HORIZONTAL EDGE COMPENSATION
YENC-OUT ; LUMINANCE SIGNAL AMPLIFIER
YH-OUT ; OUTPUT OF APARTURE COMPENSATION CIRCUIT
YL-OUT ; LUMINANCE SIGNAL MATRIX OUTPUT
(B-Y)-OUT ; B-Y SIGNAL MATRIX
(R-Y)-OUT ; R-Y SIGNAL MATRIX


AGC-R
WHITE CLIP
AGC-R 60
AGC-IN-R 61
CLAMP
AGC
58 AGC-OUT-R
DC-FB
FB-AGC-R 59
AGC-G
AGC-G 64
AGC-IN-G 63
FB-AGC-G 62
66 AGC-OUT-G
AGC-B
AGC-B 71
AGC-IN-B 70
FB-AGC-B 68
74 AGC-OUT-B
CP-IN-2 83
PROCESS-R
PED-R 52
PRE-KNEE-R 53
WB-R 55
PROC-IN-R 57
PEDESTAL
KNEE
W CLIP
CLAMP
VCA
PRE-KNEE
ADD
KNEE
WHITE CLIP
BLK
BLACK CLIP
AMP
45 PROC-OUT-R
FB-WB-R 54
FB-γ-R 51
FB-KNEE-R 49
PED-G 40
PRE-KNEE-G 41
WB-G 43
PROC-IN-G 67
FB-WB-G 42
FB-γ-G 39
FB-KNEE-G 38
PROCESS-G
36 PROC-OUT-G
PED-B 29
PRE-KNEE-B 30
WB-B 32
PROC-IN-B 75
FB-WB-B 31
FB-γ-B 27
FB-KNEE-B 26
PROCESS-B
25 PROC-OUT-B
PULSE SEP
CP-IN-1 44
γ 50 γ
KNEE 48 KNEE
W CLIP 47 W CLIP
MTX-IN-R 24
MTX-IN-YR 23
-(R-Y) AMP
22 -(R-Y)-OUT
MTX-IN-B 20
MTX-IN-YB 19
-(B-Y) AMP
18 -(B-Y)-OUT
MTX-IN-YL 15
YL
14 YL-OUT
MTX-IN-YEDGE 13
YEDGE
11 YEDGE OUT
BIAS
16 BIAS
YEDGE-IN 10
CLAMP
8 DL-OUT
VCA-YH 88
VCA-EDGE 5
REF
87 VREF
DL-IN-1 6
DL-IN-2 7
VCA2
BASE CLIP
VCA1
86 YH-OUT
DC-FB
FB-VCA-EDGE 3
BASE-CLIP 2
YL-IN 1
YENC-IN 85
YENC AMP
84 YENC-OUT
AGC-DET-IN 82
AGC DET
76 AGC-DET-OUT
AGC-MAX 4
AGC-STAT 81

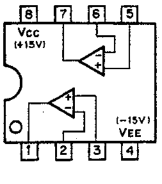
UPC311G2 (NEC) FLAT PACKAGE

VOLTAGE COMPARATOR
-TOP VIEW -


1 GND
2
3
4 VEE
Vcc (+5to+36V) 8
7
6
5

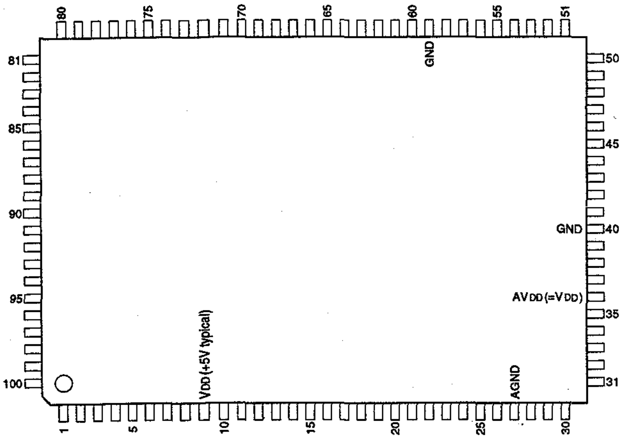
UPC4558G2 (NEC) FLAT PACKAGE

DUAL OPERATIONAL AMPLIFIER
- TOP VIEW -


8
7
6
5
Vcc (+15V)
(-15V) VEE
1
2
3
4

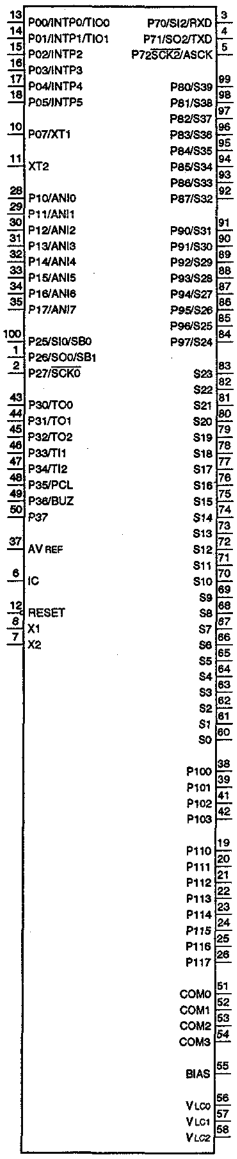
UPD78064GF (NEC)

C-MOS 8BIT SINGLE CHIP MICROCOMPUTER
- TOP VIEW -


80
75
70
65
60
55
51
GND
81
85
90
95
100
50
45
GND
40
AVDD(=VDD)
35
31
VDD(+5V typical)
AGND
1
5
10
15
20
25
30

(V DD =+2.7 to +6V)

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I/O	P26/SO0/SB1	26	I/O	P117	51	O	COM0	76	O	S16
2	I/O	P27/$\overline{\text{SCK0}}$	27	–	AGND	52	O	COM1	77	O	S17
3	I/O	P70/SI2/RXD	28	I/O	P10/ANI0	53	O	COM2	78	O	S18
4	O	P71/SO2/TXD	29	I/O	P11/ANI1	54	O	COM3	79	O	S19
5	I/O	P72/$\overline{\text{SCK2}}$/ASCK	30	I/O	P12/ANI2	55	–	BIAS	80	O	S20
6	–	IC	31	I/O	P13/ANI3	56	–	V_{LC0}	81	O	S21
7	–	X2	32	I/O	P14/ANI4	57	–	V_{LC1}	82	O	S22
8	I	X1	33	I/O	P15/ANI5	58	–	V_{LC2}	83	O	S23
9	–	V_{DD}	34	I/O	P16/ANI6	59	–	GND	84	I/O	P97/S24
10	I	P07/XT1	35	I/O	P17/ANI7	60	O	S0	85	I/O	P96/S25
11	–	XT2	36	–	AV_{DD}	61	O	S1	86	I/O	P95/S26
12	I	$\overline{\text{RESET}}$	37	I	AV_{REF}	62	O	S2	87	I/O	P94/S27
13	I	P00/INTP0/TIO0	38	I/O	P100	63	O	S3	88	I/O	P93/S28
14	I/O	P01/INTP1/TIO1	39	I/O	P101	64	O	S4	89	I/O	P92/S29
15	I/O	P02/INTP2	40	–	GND	65	O	S5	90	I/O	P91/S30
16	I/O	P03/INTP3	41	I/O	P102	66	O	S6	91	I/O	P90/S31
17	I/O	P04/INTP4	42	I/O	P103	67	O	S7	92	I/O	P87/S32
18	I/O	P05/INTP5	43	I/O	P30/TO0	68	O	S8	93	I/O	P86/S33
19	I/O	P110	44	I/O	P31/TO1	69	O	S9	94	I/O	P85/S34
20	I/O	P111	45	I/O	P32/TO2	70	O	S10	95	I/O	P84/S35
21	I/O	P112	46	I/O	P33/TI1	71	O	S11	96	I/O	P83/S36
22	I/O	P113	47	I/O	P34/TI2	72	O	S12	97	I/O	P82/S37
23	I/O	P114	48	I/O	P35/PCL	73	O	S13	98	I/O	P81/S38
24	I/O	P115	49	I/O	P36/BUZ	74	O	S14	99	I/O	P80/S39
25	I/O	P116	50	I/O	P37	75	O	S15	100	I/O	P25/SI0/SB0

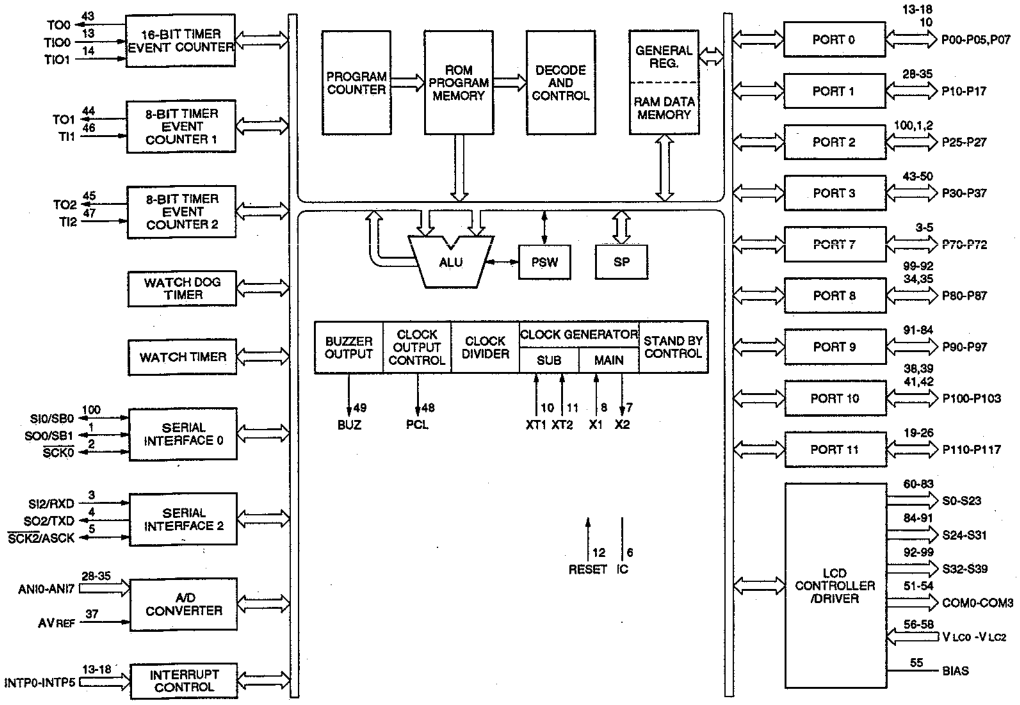

13 P00/INTP0/TIO0
14 P01/INTP1/TIO1
15 P02/INTP2
16 P03/INTP3
17 P04/INTP4
18 P05/INTP5
10 P07/XT1
11 XT2
28 P10/ANI0
29 P11/ANI1
30 P12/ANI2
31 P13/ANI3
32 P14/ANI4
33 P15/ANI5
34 P16/ANI6
35 P17/ANI7
100 P25/SI0/SB0
1 P26/SO0/SB1
2 P27/SCK0
43 P30/TO0
44 P31/TO1
45 P32/TO2
46 P33/TI1
47 P34/TI2
48 P35/PCL
49 P36/BUZ
50 P37
37 AV REF
6 IC
12 RESET
8 X1
7 X2
P70/SI2/RXD 3
P71/SO2/TXD 4
P72SCK2/ASCK 5
P80/S39 99
P81/S38 98
P82/S37 97
P83/S36 96
P84/S35 95
P85/S34 94
P86/S33 93
P87/S32 92
P90/S31 91
P91/S30 90
P92/S29 89
P93/S28 88
P94/S27 87
P95/S26 86
P96/S25 85
P97/S24 84
S23 83
S22 82
S21 81
S20 80
S19 79
S18 78
S17 77
S16 76
S15 75
S14 74
S13 73
S12 72
S11 71
S10 70
S9 69
S8 68
S7 67
S6 66
S5 65
S4 64
S3 63
S2 62
S1 61
S0 60
P100 38
P101 39
P102 41
P103 42
P110 19
P111 20
P112 21
P113 22
P114 23
P115 24
P116 25
P117 26
COM0 51
COM1 52
COM2 53
COM3 54
BIAS 55
VLC0 56
VLC1 57
VLC2 58

INPUT
ANI0-ANI7 ; ANALOG 0-7 (A/D CONVERTER)
ASCK ; ASYNCHRONOUS SERIAL CLOCK
AV_{REF} ; ANALOG REFERENCE VOLTAGE (A/D CONVERTER)
INTP0-INTP5 ; INTERRUPT FROM PERIPHERALS 0-5
P00, P07 ; PORT 0
$\overline{\text{RESET}}$; RESET
RXD ; RECEIVE DATA
SI0, SI2 ; SERIAL DATA 0, 2
TIO0 ; EXTERNAL COUNT CLOCK 0
TIO1 ; CAPTURE TRIGGER
TI1, TI2 ; EXTERNAL COUNT CLOCK 1, 2
X1, X2 ; CRYSTAL1, 2 (MAIN SYSTEM CLOCK)
XT1, XT2 ; CRYSTAL1, 2 (SUB SYSTEM CLOCK)

OUTPUT
BUZ ; BUZZER CLOCK
COM0-COM3 ; COMMON DATA
PCL ; PROGRAMMABLE CLOCK
S0-S39 ; SEGMENT DATA
SO0, SO2 ; SERIAL DATA 0, 2
TO0-TO2 ; TIMER 0-2
TXD ; TRANSMIT DATA

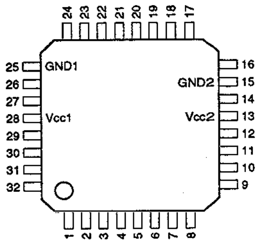
INPUT/OUTPUT
P01-P05 ; PORT 0
P10-P17 ; PORT 1
P25-P27 ; PORT 2
P30-P37 ; PORT 3
P70-P72 ; PORT 7
P80-P87 ; PORT 8
P90-P97 ; PORT 9
P100-P103 ; PORT 10
P110-P117 ; PORT 11
SB0, SB1 ; SERIAL DATA BUS 0, 1
$\overline{\text{SCK0}}$, $\overline{\text{SCK2}}$; SERIAL CLOCK 0, 2

OTHER
BIAS ; LCD POWER SUPPLY BIAS CONTROL
IC ; INTERNALLY CONNECTED
V_{LC0} -V_{LC2} ; LCD POWER SUPPLY


TO0
TIO0
TIO1
43
13
14
16-BIT TIMER EVENT COUNTER
TO1
TI1
44
46
8-BIT TIMER EVENT COUNTER 1
TO2
TI2
45
47
8-BIT TIMER EVENT COUNTER 2
WATCH DOG TIMER
WATCH TIMER
SI0/SB0
SO0/SB1
SCK0
100
1
2
SERIAL INTERFACE 0
SI2/RXD
SO2/TXD
SCK2/ASCK
3
4
5
SERIAL INTERFACE 2
ANI0-ANI7
AVREF
28-35
37
A/D CONVERTER
INTP0-INTP5
13-18
INTERRUPT CONTROL
PROGRAM COUNTER
ROM PROGRAM MEMORY
DECODE AND CONTROL
GENERAL REG.
RAM DATA MEMORY
ALU
PSW
SP
BUZZER OUTPUT
CLOCK OUTPUT CONTROL
CLOCK DIVIDER
CLOCK GENERATOR
SUB
MAIN
STAND BY CONTROL
49
BUZ
48
PCL
10
11
8
7
XT1
XT2
X1
X2
12
RESET
6
IC
PORT 0
13-18
10
P00-P05,P07
PORT 1
28-35
P10-P17
PORT 2
100,1,2
P25-P27
PORT 3
43-50
P30-P37
PORT 7
3-5
P70-P72
PORT 8
99-92
34,35
P80-P87
PORT 9
91-84
P90-P97
PORT 10
38,39
41,42
P100-P103
PORT 11
19-26
P110-P117
LCD CONTROLLER /DRIVER
60-83
S0-S23
84-91
S24-S31
92-99
S32-S39
51-54
COM0-COM3
56-58
VLC0 -VLC2
55
BIAS

CXA1480Q (SONY)

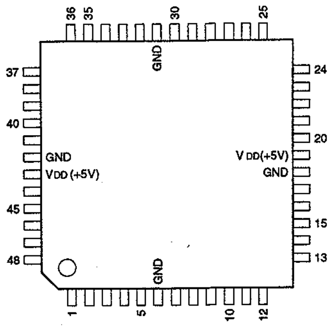
THROUGH PATE LIMITER
- TOP VIEW -


24
23
22
21
20
19
18
17
25
26
27
28
29
30
31
32
GND1
Vcc1
GND2
Vcc2
16
15
14
13
12
11
10
9
1
2
3
4
5
6
7
8

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I	TH IN	17	O	SLEW OUT
2	I	SLEW CONT	18	I	SLEW IN
3	I	SLEW C	19	I	SR R IN
4	I	SLEW REF	20	O	SR R OUT
5	I	LIM H	21	O	VCA OUT
6	I	LIM L	22	I	RG1 IN
7	I	SW IN2	23	O	RG1 OUT
8	I	SH IN	24	O	AMP OUT
9	O	SH C	25	–	GND1
10	O	SH OUT	26	I	AMP IN
11	I	SH PLS	27	I	AMP REF
12	I	SW PLS	28	–	Vcc1
13	–	Vcc2	29	I	RG2 IN
14	O	SW OUT	30	I	VCA CONT
15	–	GND2	31	O	COMP OUT
16	I	SW IN1	32	O	COMP SIG

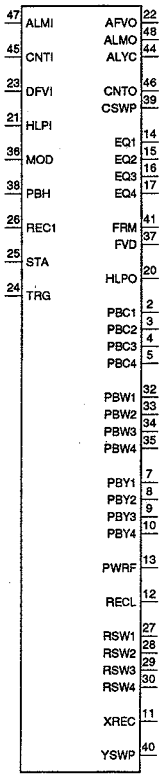
CXD1357Q (FUJITSU)

C-MOS VIDEO RF TIMING DECODER
- TOP VIEW -


36
35
30
25
GND
37
40
45
48
GND
VDD (+5V)
VDD(+5V)
GND
24
20
15
13
GND
1
5
10
12

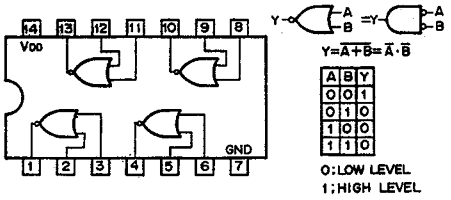
(VDD=+5V)

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	–	–	25	I	STA
2	O	PBC1	26	I	REC1
3	O	PBC2	27	O	RSW1
4	O	PBC3	28	O	RSW2
5	O	PBC4	29	O	RSW3
6	–	GND	30	O	RSW4
7	O	PBY1	31	–	GND
8	O	PBY2	32	O	PBW1
9	O	PBY3	33	O	PBW2
10	O	PBY4	34	O	PBW3
11	O	XREC	35	O	PBW4
12	O	RECL	36	I	MOD
13	O	PWRF	37	O	FVD
14	O	EQ1	38	I	PBH
15	O	EQ2	39	O	CSWP
16	O	EQ3	40	O	YSWP
17	O	EQ4	41	O	FRM
18	–	GND	42	–	GND
19	–	V DD	43	–	V DD
20	O	HLPO	44	O	ALYC
21	I	HLPI	45	I	CNTI
22	O	AFVO	46	O	CNTO
23	I	DFVI	47	I	ALMI
24	I	TRG	48	O	ALMO


47 ALMI
45 CNTI
23 DFVI
21 HLPI
36 MOD
38 PBH
26 REC1
25 STA
24 TRG
AFVO 22
ALMO 48
ALYC 44
CNTO 46
CSWP 39
EQ1 14
EQ2 15
EQ3 16
EQ4 17
FRM 41
FVD 37
HLPO 20
PBC1 2
PBC2 3
PBC3 4
PBC4 5
PBW1 32
PBW2 33
PBW3 34
PBW4 35
PBY1 7
PBY2 8
PBY3 9
PBY4 10
PWRF 13
RECL 12
RSW1 27
RSW2 28
RSW3 29
RSW4 30
XREC 11
YSWP 40

SN74HC02ANS (TI) FLAT PACKAGE

C-MOS QUAD 2-INPUT NOR GATES
- TOP VIEW -

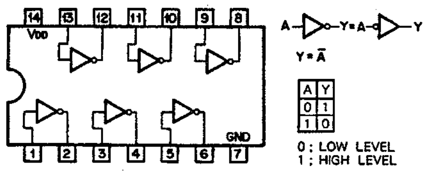

14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7
Y
A
B
=Y
A
B
Y=A+B=A·B
A B Y
0 0 1
0 1 0
1 0 0
1 1 0
0:LOW LEVEL
1:HIGH LEVEL

NOTE :

TYPE	VDD
HC	+2 to +6V
AC/VHC	+2 to +5.5V
HCT/ACT	+5V

SN74HC04ANS (TI) FLAT PACKAGE
TC74VHCU04F (TOSHIBA)

C-MOS HEX INVERTERS
- TOP VIEW -

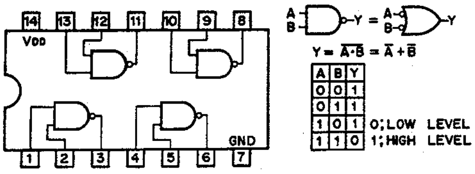

14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7
A
Y=A
Y
Y=A
A Y
0 1
1 0
0 : LOW LEVEL
1 : HIGH LEVEL

NOTE :

TYPE	VDD
74HCT04 TYPE	+ 5V
TC74AC04 TYPE TC74VHC04 TYPE	+ 2 to + 5.5V
74ACT04 TYPE	+ 4.5 to + 5.5V
OTHER TYPES	+ 2 to + 6V

TC74VHC00P (TOSHIBA) FLAT PACKAGE

C-MOS QUAD 2-INPUT NAND GATES
- TOP VIEW -

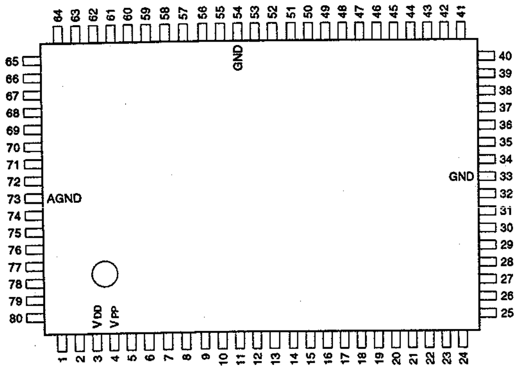

14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7
A
B
Y
=
A
B
Y
Y= A·B = A+B
A B Y
0 0 1
0 1 1
1 0 1
1 1 0
0:LOW LEVEL
1:HIGH LEVEL

NOTE :

TYPE	VDD
TC74AC00 TYPE TC74VHC00	+2 to +5.5V
MC74HCT00N	+5V
74ACT00 TYPE	+4.5 to +5.5V
OTHER TYPES	+2 to +6V

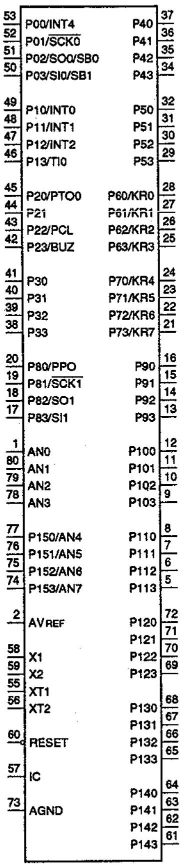
UPD75516GF (NEC)

C-MOS 4BIT SINGLE CHIP MICROCOMPUTER
- TOP VIEW -


GND
GND
AGND
VDD
VPP
1–80

(VDD=+5V, VPP=FOR PROGRAMMING)

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I	AN0	21	I/O	P73/KR7	41	I/O	P30	61	I/O	P143
2	I	AVREF	22	I/O	P72/KR6	42	I/O	P23/BUZ	62	I/O	P142
3	–	VDD	23	I/O	P71/KR5	43	I/O	P22/PCL	63	I/O	P141
4	–	VPP	24	I/O	P7P/KR4	44	I/O	P21	64	I/O	P140
5	I/O	P113	25	I/O	P63/KR3	45	I/O	P20/PO0	65	I/O	P133
6	I/O	P112	26	I/O	P62/KR2	46	I	P13/TI0	66	I/O	P132
7	I/O	P111	27	I/O	P61/KR1	47	I	P12/INT2	67	I/O	P131
8	I/O	P110	28	I/O	P60/KR0	48	I	P11/INT1	68	I/O	P130
9	I/O	P103	29	I/O	P53	49	I	P10/INT0	69	I/O	P123
10	I/O	P102	30	I/O	P52	50	I/O	P03/SI0/SB1	70	I/O	P122
11	I/O	P101	31	I/O	P51	51	I/O	P02/SO0/SB0	71	I/O	P121
12	I/O	P100	32	I/O	P50	52	I/O	P01/$\overline{SCK0}$	72	I/O	P120
13	I/O	P93	33	–	GND	53	I	P00/INT4	73	–	AGND
14	I/O	P92	34	I/O	P43	54	–	GND	74	I	P153/AN7
15	I/O	P91	35	I/O	P42	55	I	XT1	75	I	P152/AN6
16	I/O	P90	36	I/O	P41	56	–	XT2	76	I	P151/AN5
17	I	P83/SI1	37	I/O	P40	57	–	IC	77	I	P150/AN4
18	I/O	P82/SO1	38	I/O	P33	58	I	X1	78	I	AN3
19	I/O	P81/$\overline{SCK1}$	39	I/O	P32	59	I	X2	79	I	AN2
20	I/O	P80/PP0	40	I/O	P31	60	I	$\overline{RESET}$	80	I	AN1

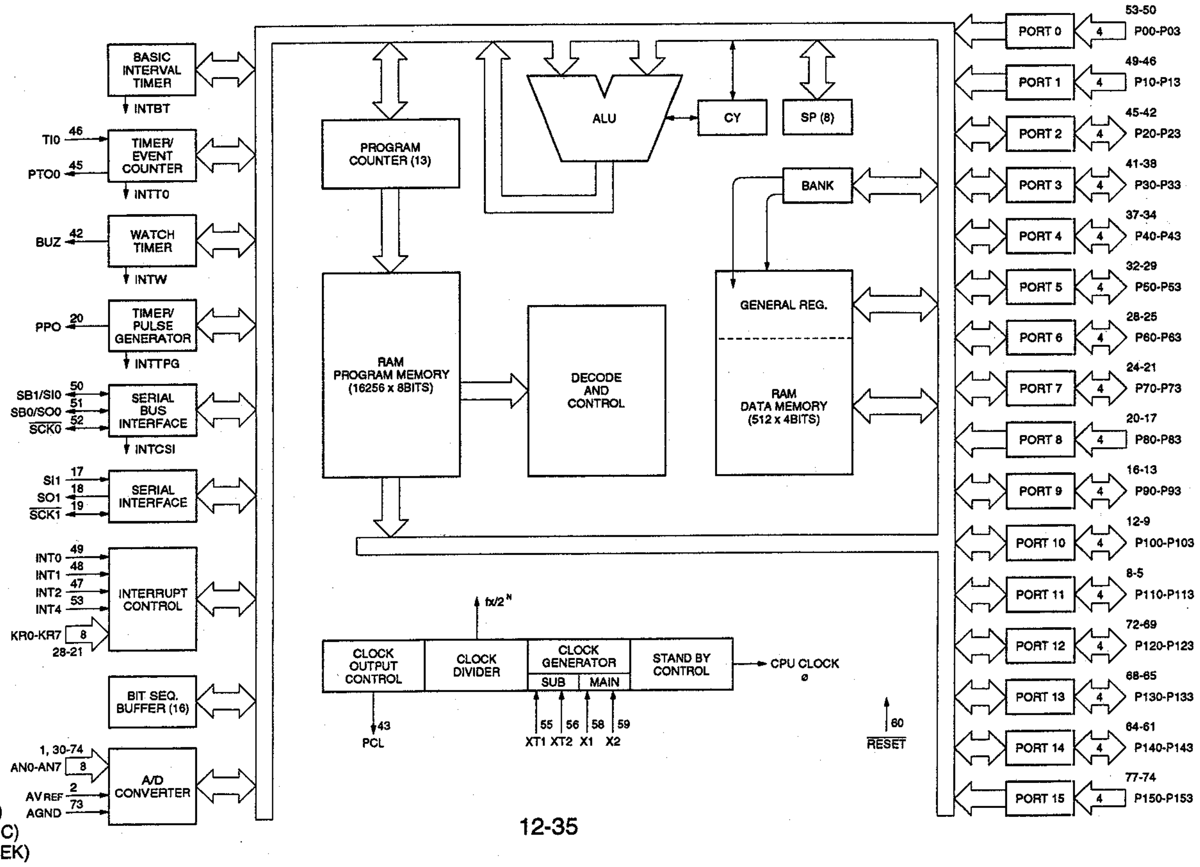

53 P00/INT4
52 P01/SCK0
51 P02/SO0/SB0
50 P03/SI0/SB1
49 P10/INT0
48 P11/INT1
47 P12/INT2
46 P13/TI0
45 P20/PTO0
44 P21
43 P22/PCL
42 P23/BUZ
41 P30
40 P31
39 P32
38 P33
20 P80/PPO
19 P81/SCK1
18 P82/SO1
17 P83/SI1
1 AN0
80 AN1
79 AN2
78 AN3
77 P150/AN4
76 P151/AN5
75 P152/AN6
74 P153/AN7
2 AVREF
58 X1
59 X2
55 XT1
56 XT2
60 RESET
57 IC
73 AGND
P40 37
P41 36
P42 35
P43 34
P50 32
P51 31
P52 30
P53 29
P60/KR0 28
P61/KR1 27
P62/KR2 26
P63/KR3 25
P70/KR4 24
P71/KR5 23
P72/KR6 22
P73/KR7 21
P90 16
P91 15
P92 14
P93 13
P100 12
P101 11
P102 10
P103 9
P110 8
P111 7
P112 6
P113 5
P120 72
P121 71
P122 70
P123 69
P130 68
P131 67
P132 66
P133 65
P140 64
P141 63
P142 62
P143 61

INPUT
AN0-AN7 ; ANALOG SIGNAL FOR A/D CONVERTER
AV ; A/D CONVERTER REFERENCE
INT0, INT1, INT4 ; EDGE DETECT VECTOR INTERRUPT
INT2 ; EDGE DETECT TESTABLE
KR0-KR7 ; PARALLEL FALL EDGE DETECT TESTABLE
P00-P03 ; PORT0
P10-P13 ; PORT1
P80-P83 ; PORT8
P150-P153 ; PORT15
$\overline{RESET}$; SYSTEM RESET
SI0, SI1 ; SERIAL DATA
TI0 ; EVENT PULSE FOR COUNTER
X1, X2 ; MAIN SYSTEM CLOCK
XT1, XT2 ; SUB SYSTEM CLOCK

OUTPUT
BUZ ; FIXED FREQUENCY
PCL ; CLOCK
PPO ; TIMER PULSE GENERATOR
PTO0 ; TIMER/EVENT COUNTER
SO0, SO1 ; SERIAL DATA

INPUT/OUTPUT
P20-P23 ; PORT2
P30-P33 ; PORT3 (PROGRAMMABLE)
P40-P43 ; PORT4
P50-P53 ; PORT5
P60-P63 ; PORT6 (PROGRAMMABLE)
P70-P73 ; PORT7
P90-P93 ; PORT9
P100-P103 ; PORT10
P110-P113 ; PORT11
P120-P123 ; PORT12
P130-P133 ; PORT13
P140-P143 ; PORT14
SB0, SB1 ; SERIAL BUS
$\overline{SCK0}$, $\overline{SCK1}$; SERIAL CLOCK

OTHER
AGND ; ANALOG GND
IC ; INTERNALLY CONNECTED


BASIC INTERVAL TIMER
INTBT
TI0 46
PTO0 45
TIMER/ EVENT COUNTER
INTT0
BUZ 42
WATCH TIMER
INTW
PPO 20
TIMER/ PULSE GENERATOR
INTTPG
SB1/SI0 50
SB0/SO0 51
SCK0 52
SERIAL BUS INTERFACE
INTCSI
SI1 17
SO1 18
SCK1 19
SERIAL INTERFACE
INT0 49
INT1 48
INT2 47
INT4 53
KR0-KR7 8
28-21
INTERRUPT CONTROL
BIT SEQ. BUFFER (16)
1, 30-74
AN0-AN7 8
AVREF 2
AGND 73
A/D CONVERTER
PROGRAM COUNTER (13)
ALU
CY
SP (8)
BANK
RAM PROGRAM MEMORY (16256 x 8BITS)
DECODE AND CONTROL
GENERAL REG.
RAM DATA MEMORY (512 x 4BITS)
fx/2N
CLOCK OUTPUT CONTROL
CLOCK DIVIDER
CLOCK GENERATOR
SUB
MAIN
STAND BY CONTROL
CPU CLOCK ø
43 PCL
55 XT1
56 XT2
58 X1
59 X2
60 RESET
PORT 0 4 P00-P03 53-50
PORT 1 4 P10-P13 49-46
PORT 2 4 P20-P23 45-42
PORT 3 4 P30-P33 41-38
PORT 4 4 P40-P43 37-34
PORT 5 4 P50-P53 32-29
PORT 6 4 P60-P63 28-25
PORT 7 4 P70-P73 24-21
PORT 8 4 P80-P83 20-17
PORT 9 4 P90-P93 16-13
PORT 10 4 P100-P103 12-9
PORT 11 4 P110-P113 8-5
PORT 12 4 P120-P123 72-69
PORT 13 4 P130-P133 68-65
PORT 14 4 P140-P143 64-61
PORT 15 4 P150-P153 77-74

SECTION 13
SPARE PARTS AND OPTIONAL FIXTURES

13-1. NOTES ON REPAIR PARTS

(1) Safety Related Components Warning

Components marked with ⚠ on the schematic diagrams, exploded views and electrical spare parts list are critical to safe operation.

Replace these components with Sony parts whose part numbers appear in this manual or in service bulletins and service manual supplements published by Sony.

(2) Standardization of Parts

Repair parts supplied from Sony Parts Center may not be always identical with the parts which actually in use due to "accommodating the improved parts and/or engineering changes" or "standardization of genuine parts".

This manual's exploded views and electrical spare parts list are indicating the part numbers of "the standardized genuine parts at present".

(3) Stock of Parts

Parts marked with "o" SP (Supply Code) column of the spare parts list are not normally required for routine service work. Orders for parts marked with "o" will be processed, but allow for additional delivery time.

(4) Units for Capacitors, Inductors and Resistors

The following units are assumed in schematic diagrams, electrical parts list and exploded views unless otherwise specified.

Capacitors : μF
Inductors : μH
Resistors : Ω

(5) Tension Spring

(××T) after a tension spring is shown on the parts list in order to indicate the number of spring turns required for the use.

(Example) TENSION, SPRING (20T):
This spring must be cut at its 20th turn for actual use.

13-1. 補修用部品注意事項

(1) 安全重要部品

回路図、分解図、電気部品表中、⚠印の部品は安全性を維持するために重要な部品です。従ってこれらの部品を交換するときには必ず指定の部品と交換して下さい。

(2) 部品の共通化

ソニーから供給される部品は、セットに実装されているものと異なることがあります。これは部品の共通化、改良等によるものです。

分解図や電気部品表には現時点での共通化された部品が記載されています。

(3) 部品の在庫

部品表のSP (Supply code) 欄に o で示される部品は交換頻度が低い部品ですので在庫していないことがあり、納期が長くなることがあります。

(4) コンデンサー、インダクター、抵抗の単位

回路図、分解図、電気部品表中、特に明記したものを除き、下記の単位は省略されています。

コンデンサー : μF
インダクター : μH
抵抗 : Ω

(5) 引張コイルバネ

部品表中の引張コイルバネの名称のあとの(××T)は、使用時の巻数を示しています。

(例) TENSION、SPRING(20T)
巻数が20になるように切断し、使用する。

13-2. EXPLODED VIEW

(1) Front Panel 13-2
(2) Reel Chassis 13-4
(3) Slant 13-6
(4) Drum 13-8
(5) Loading Gear/Pinch Arm 13-10
(6) Cam Gear 13-12
(7) Pinch Press Mechanism 13-14
(8) CTL Head Base 13-16
(9) A/T Head Base 13-18
(10) Cassette-Up Compartment 13-20
(11) Top Frame/Rear Frame 13-22
(12) Bottom Frame 13-24
(13) Printed Circuit Board 13-26
(14) Right Side Plate 13-28
(15) Left Side Plate 13-30
(16) Viewfinder (DXF-501/501CE) 13-32
(17) Battery Case 13-34
(18) Triod Attachment (VCT-U14) 13-36
(19) Lens (VCL-713BX) 13-38

FRONT PANEL

FRONT PANEL

No.	Part No.	SP	Description
1	A-8276-985-A	s	CCD UNIT-W100(N) (J,UC)*
2	A-8276-986-A	s	CCD UNIT-W100P(P) (EK)*
3	X-3678-047-3	o	PANEL ASSY,FRONT
4	1-547-463-11	o	FILTER UNIT, OPTICAL
5	1-547-463-21	o	FILTER UNIT, OPTICAL
6	1-554-486-00	s	SWITCH, TOGGLE
7	1-561-320-31	s	DIN SOCKET 8P
8	1-562-221-21	s	CONNECTOR (R-F)(ROUND TYPE)12P
9	1-651-577-11	o	PRINTED CIRCUIT BOARD, CN-992
10	1-651-581-11	o	PRINTED CIRCUIT BOARD, SW-656
11	1-949-929-11	o	HARNESS (LENS-1)
12	1-949-936-11	o	HARNESS (SW-4)
13	3-178-213-01	s	SCREW, B 3X6
14	3-178-213-31	s	SCREW, B 3X12
15	3-672-221-02	s	PACKING, CONTROL
16	3-676-244-00	s	COVER, SWITCH
17	3-678-629-00	s	LEVER, MOUNT
18	3-678-684-00	o	HOLDER, CABLE
19	3-679-499-01	o	GUARD,OPTICAL BLOCK
20	3-699-047-01	s	KNOB, FILTER
21	3-699-144-02	s	CAP, MOUNT
22	3-701-506-01	s	SET SCREW, DOUBLE POINT 3X4
23	3-710-002-01	o	BRACKET
24	7-627-450-98	s	SCREW, PRECISION K 1.7X5
25	7-627-452-28	s	SCREW, PRECISION K 2X4
26	7-627-556-38	s	SCREW, PRECISION P 2.6X4
27	7-627-556-78	s	SCREW, PRECISION P 2.6X6

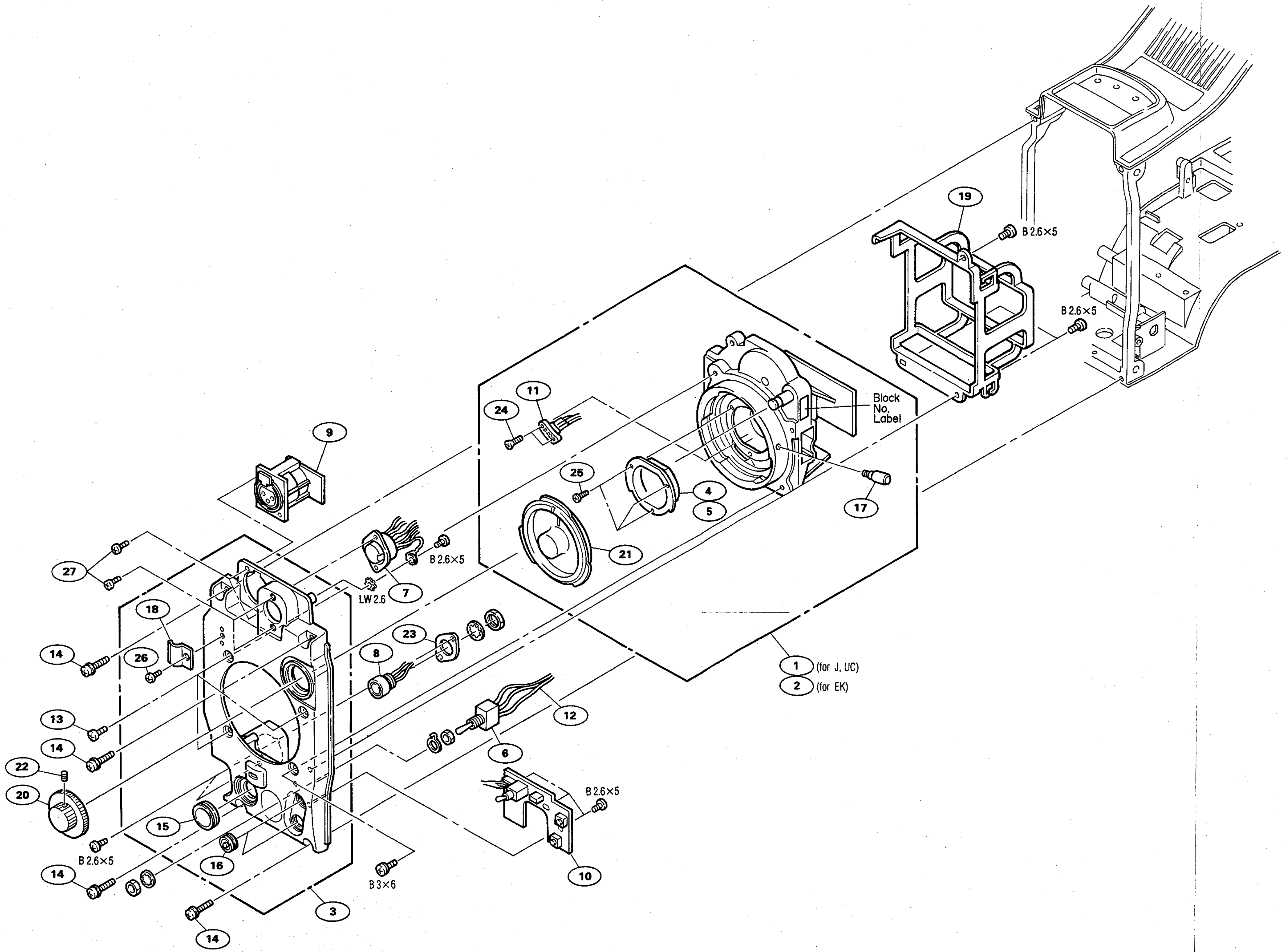
* CCD BLOCK NUMBER; CA$_A$ xxxx
CCD BLOCK NUMBER; CB$_A$ xxxx

How to read the CCD BLOCK NUMBER

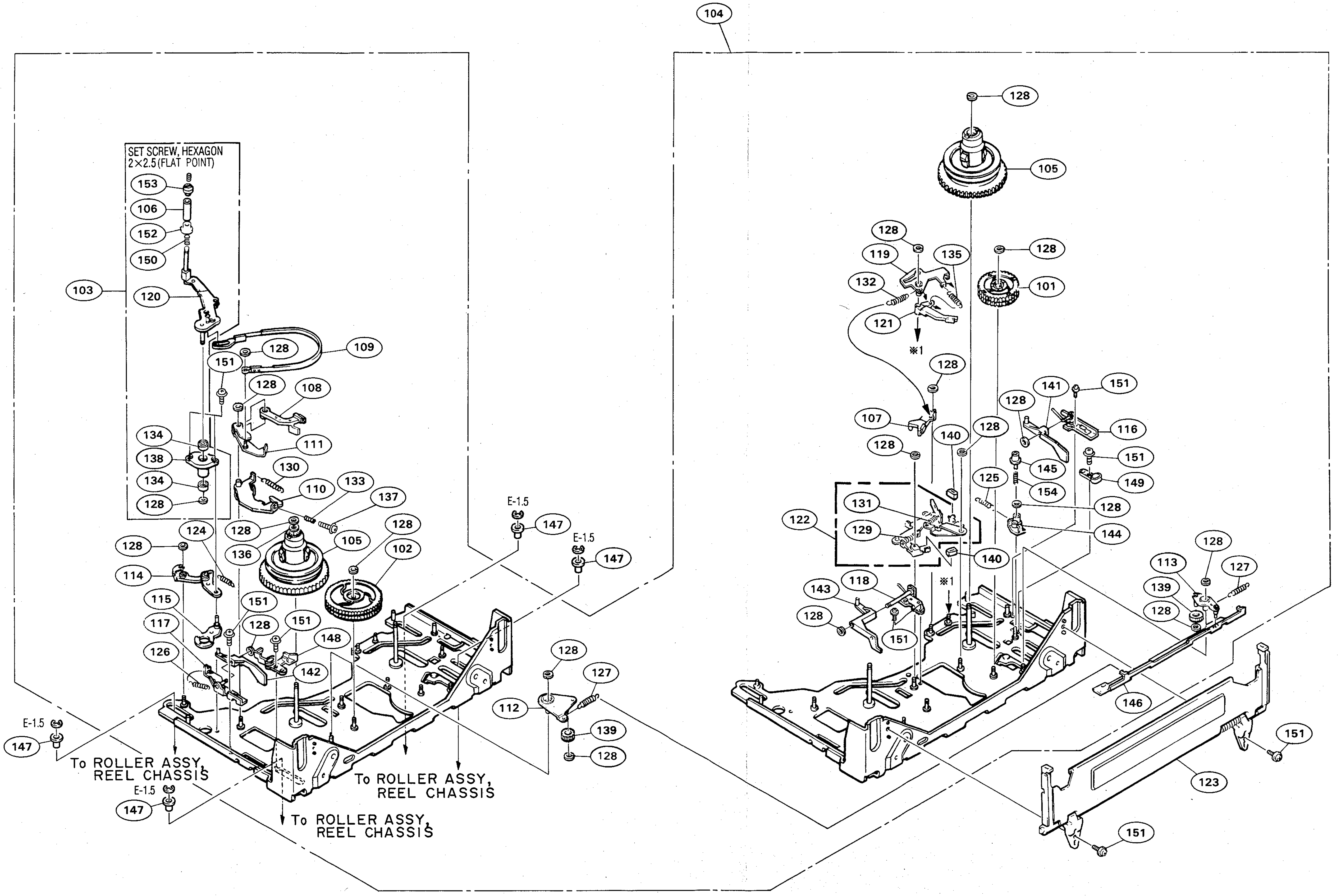
C A A xxxx

- xxxx: Block number of CCD UNIT
- A: Suffix of Spare Part number
- A: Model name (A: UVW-100, B: UVW-100P)
- C: CCD type

FRONT PANEL


B2.6×5
B2.6×5
Block
No.
Label
B2.6×5
LW2.6
B2.6×5
B2.6×5
B3×6
1 (for J, UC)
2 (for EK)

REEL CHASSIS


SET SCREW, HEXAGON
2×2.5 (FLAT POINT)
153
106
152
150
103
120
109
128
151
128
108
111
134
138
134
128
130
110
133
137
124
128
136
105
128
102
128
114
115
117
126
151
128
151
148
142
E-1.5
147
E-1.5
147
128
127
112
139
128
E-1.5
147
To ROLLER ASSY, REEL CHASSIS
E-1.5
147
To ROLLER ASSY, REEL CHASSIS
To ROLLER ASSY, REEL CHASSIS
104
128
105
128
119
135
128
132
101
121
※1
128
141
151
128
107
116
140
128
128
145
151
125
154
149
131
128
122
129
144
140
128
113
127
※1
143
118
139
128
128
151
146
151
123
151

REEL CHASSIS

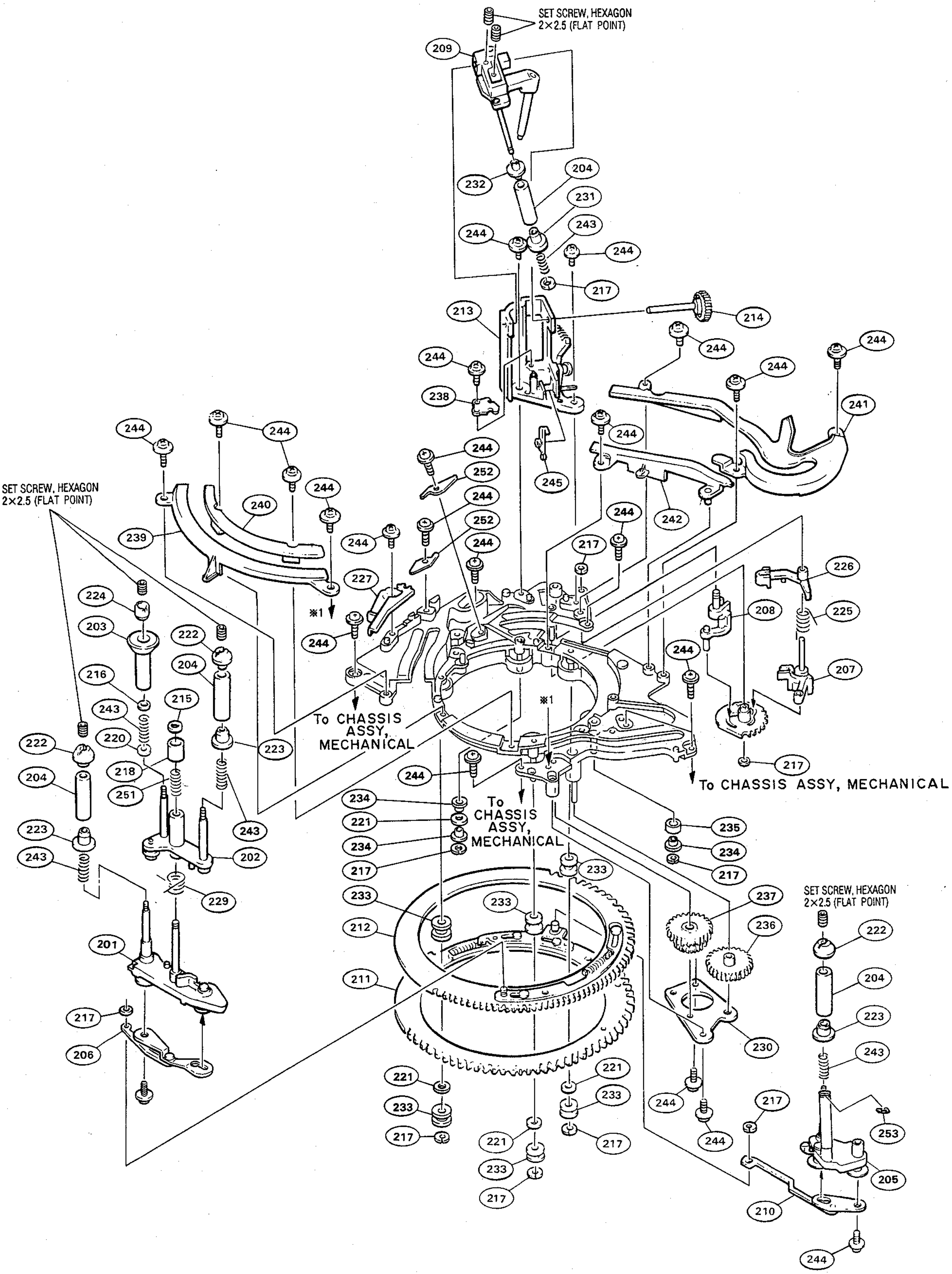
No.	Part No.	SP	Description
101	A-6740-091-D	s	IDLER ASSY, T
102	A-6740-092-D	s	IDLER ASSY, S
103	A-6742-067-K	s	TENSION REGULATOR ASSY
104	A-6771-030-G	s	CHASSIS ASSY, REEL
105	X-3722-321-3	s	TABLE ASSY, REEL
106	X-3722-322-2	s	ROLLER ASSY, POM
107	X-3722-323-2	s	BRAKE ASSY, T SOFT
108	X-3722-324-3	s	BRAKE ASSY, S SOFT
109	X-3722-325-3	s	BAND ASSY, TENSION REGULATOR
110	X-3722-326-3	o	LEVER (A) ASSY, SUPPORT LEVER
111	X-3722-327-3	o	SUPPORT (B) ASSY, BAND
112	X-3722-328-1	o	ARM ASSY, S JOINT GEAR
113	X-3722-329-1	o	ARM ASSY, T JOINT GEAR
114	X-3722-330-1	o	HOOK ASSY, SPRING
115	X-3722-331-1	o	DRIVING ASSY,TENSION REGULATOR
116	X-3722-332-1	o	HOLDER (A) ASSY
117	X-3722-333-4	o	HOLDER (B) ASSY
118	X-3722-334-1	o	HOLDER (C) ASSY
119	X-3722-335-2	o	LEVER ASSY, PINCH ARM LOCK
120	X-3722-351-8	o	ARM ASSY, TENSION REGULATOR
121	X-3722-410-1	s	BRAKE ASSY, T SUB SOFT
122	X-3722-421-1	o	SLIDER ASSY, BRAKE
123	X-3722-423-1	o	PLATE (B) ASSY, BLIND
124	3-489-310-XX	s	SPRING, TENSION (18T)
125	3-514-127-01	s	SPRING, TENSION
126	3-527-025-00	s	SPRING, TENSION
127	3-527-189-11	s	SPRING, TENSION
128	3-559-408-11	s	WASHER, POLYETHYLENE, DIA.1.2
129	3-564-935-00	s	SPRING, TENSION
130	3-567-028-11	s	SPRING, TENSION
131	3-570-590-00	s	SPRING, TENSION
132	3-570-951-00	s	SPRING, TENSION
133	3-573-150-00	s	SPRING, COMPRESSION
134	3-669-443-01	s	BEARING, BALL (NO FLANGE)
135	3-667-309-00	s	SPRING, TENSION
136	3-701-437-21	s	WASHER
137	3-703-502-71	s	SCREW
138	3-722-325-02	o	BOSS, ARM BEARING
139	3-722-344-01	s	GEAR, JOINT
140	3-722-354-01	o	RUBBER, BRAKE
141	3-722-357-01	s	LEVER (A), REC, MISTAKE
142	3-722-360-01	s	LEVER (B), REC, MISTAKE
143	3-722-363-01	s	LEVER, METAL DETECTION
144	3-722-367-01	o	HOLDER, DETECTION PIN
145	3-722-368-01	o	PIN, CASSETTE DETECTION
146	3-722-458-03	o	LINK (A), JOINT GEAR
147	3-723-007-01	s	ROLLER, LS
148	3-723-011-04	s	HOLDER (RIGHT), SLIDE PIN
149	3-723-012-01	s	HOLDER (LEFT), SLIDE PIN
150	3-729-011-01	s	SPRING, COMPRESSION
151	3-729-013-21	s	SCREW(M1.4X2.5),WASHERHEAD(+P)
152	3-729-026-04	o	FLANGE (B), LOWER
153	3-729-079-05	s	FLANGE,UPPER,TENSION REGULATOR
154	4-879-762-02	s	SPRING, COMPRESSION

SLANT

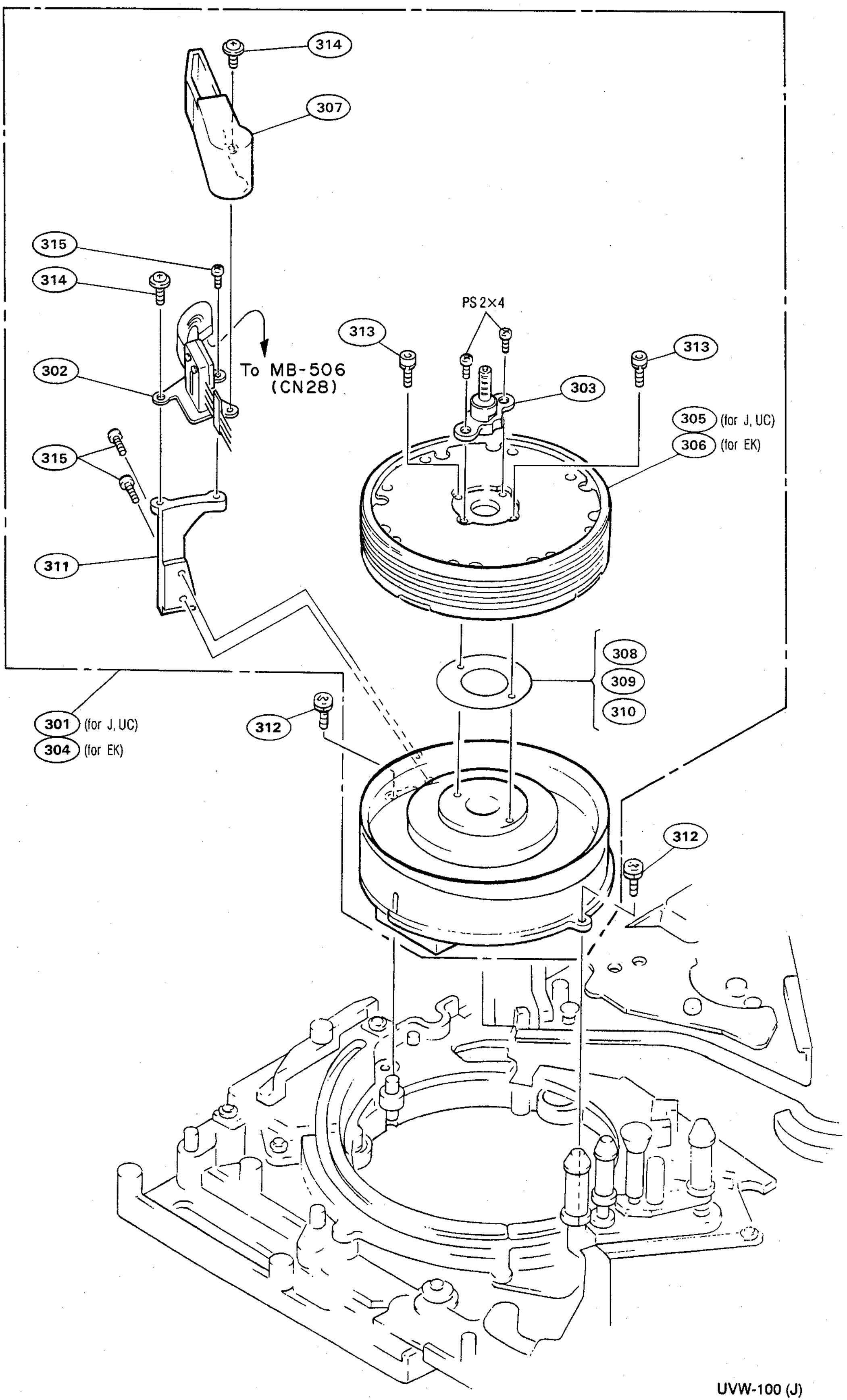
SLANT

No.	Part No.	SP	Description
201	X-3722-313-5	s	BASE ASSY, S
202	X-3722-314-3	s	BASE ASSY, S SUB
203	X-3722-315-2	s	IR-2 ASSY
204	X-3722-319-1	s	ROLLER ASSY
205	X-3722-355-5	s	BASE ASSY, T
206	X-3722-382-1	o	PULL ASSY, S
207	X-3722-383-2	o	LINK ASSY, T SUB FIXED
208	X-3722-384-3	o	LINK ASSY, T SUB ROTARY
209	X-3722-385-5	s	BASE ASSY, T SUB
210	X-3722-386-2	o	PLATE ASSY, PULL, T
211	X-3722-388-5	o	RING (T) ASSY, LOATING
212	X-3722-389-3	o	RING (S) ASSY, LOATING
213	X-3722-390-2	o	TABLE ASSY, ROTARY, T SUB
214	X-3722-409-1	o	SHAFT ASSY, MAIN, T SUB ROTARY
215	3-321-813-01	s	WASHER, COTTER POLYETHYLENE
216	3-557-565-00	s	WASHER, 1.4 DAI, SMALL
217	3-559-408-11	s	WASHER, POLYETHYLENE, DIA.1.2
218	3-657-842-01	s	SPACER (3X4)
220	3-695-567-01	s	WASHER, M SLIDER
221	3-701-436-01	s	WASHER, 1.6
222	3-722-400-02	s	FLANGE (C), UPPER
223	3-722-401-02	s	FLANGE (A), LOWER
224	3-722-402-02	o	NUT, IR
225	3-724-770-01	o	SPRING
226	3-724-772-02	o	ARM, T,S FIXED
227	3-724-775-02	o	PLATE, OPEN, S
229	3-724-789-02	s	SPRING
230	3-724-792-02	o	REINFORCEMENT, GEAR
231	3-724-793-02	s	FLANGE (A), ROLLER
232	3-724-794-01	s	FLANGE (B), ROLLER
233	3-724-799-01	s	FLANGE, RING
234	3-725-201-01	s	ROLLER, RING
235	3-725-202-02	o	ROLLER, SUB
236	3-725-203-01	o	GEAR, S DRIVING MIDWAY
237	3-725-204-01	o	GEAR, S DRIVING
238	3-725-205-01	o	PLATE, ADJUSTMENT, T SUB
239	3-725-214-02	s	RAIL (O), S
240	3-725-215-02	s	RAIL (I), S
241	3-725-217-04	s	RAIL (O), T
242	3-725-218-02	s	RAIL (I), T
243	3-729-011-01	s	SPRING, COMPRESSION
244	3-729-013-21	s	SCREW(M1.4X2.5),WASHERHEAD(+P)
245	3-729-020-01	o	PLATE, FIXED, T SUB
251	4-879-762-02	s	SPRING, COMPRESSION
252	3-179-393-01	s	RETAINER, GUIDE
253	3-179-394-01	s	GUIDE, H

SLANT


SET SCREW, HEXAGON
2×2.5 (FLAT POINT)
SET SCREW, HEXAGON
2×2.5 (FLAT POINT)
※1
To CHASSIS ASSY, MECHANICAL
※1
To CHASSIS ASSY, MECHANICAL
To CHASSIS ASSY, MECHANICAL
SET SCREW, HEXAGON
2×2.5 (FLAT POINT)

DRUM


To MB-506 (CN28)
301 (for J, UC)
304 (for EK)
PS 2×4
305 (for J, UC)
306 (for EK)

DRUM

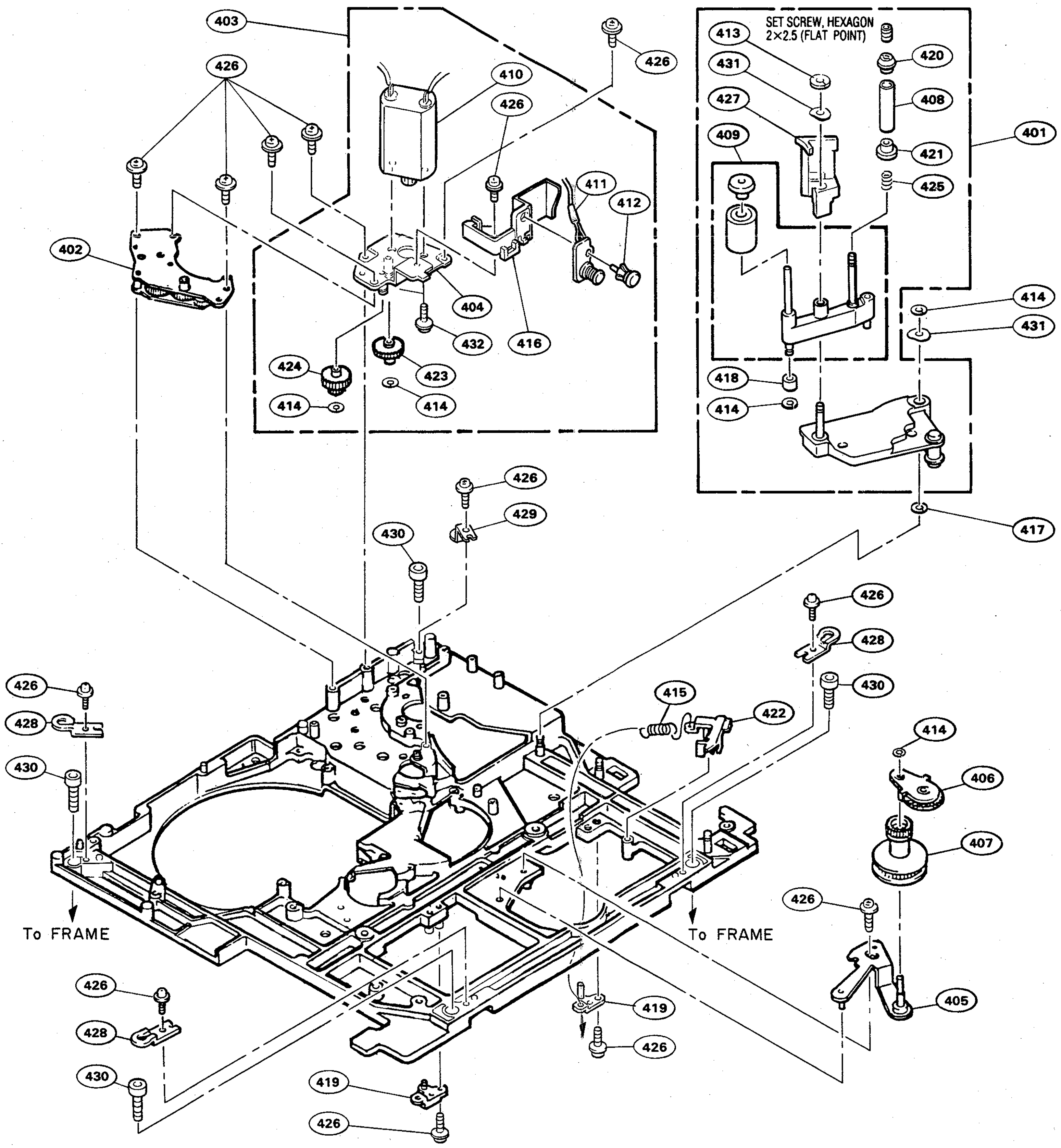
No.	Part No.	SP	Description
301	A-8263-080-A	s	HEAD DRUM ASSY DBH-45A-R (J,UC)
302	A-6050-648-A	s	BRUSH ASSY, RP (N)
303	A-8263-621-A	s	RING ASSY (RP), SLIP
304	A-8263-082-A	s	HEAD DRUM ASSY DBH-46A-R (EK)
305	A-8263-081-A	s	UPPER DRUM ASSY DBR-45-R (J,UC)
306	A-8263-083-A	s	UPPER DRUM ASSY DBR-46-R (EK)
307	3-717-148-01	o	COVER, BRUSH
308	3-184-005-01	o	SPACER, FRANGE (0.01T)
309	3-184-005-11	o	SPACER, FRANGE (0.03T)
310	3-184-005-21	o	SPACER, FRANGE (0.05T)
311	3-184-526-02	o	SUPPORT, BRUSH
312	3-729-012-01	s	SCREW (M2X5)
313	3-689-039-11	s	SCREW (M2X6), SMALL
314	3-703-502-41	s	SCREW (M1.4X3.5), WASHERHEAD
315	7-627-850-27	s	SCREW, PRECISION P1.4X3

LOADING GEAR/PINCH ARM

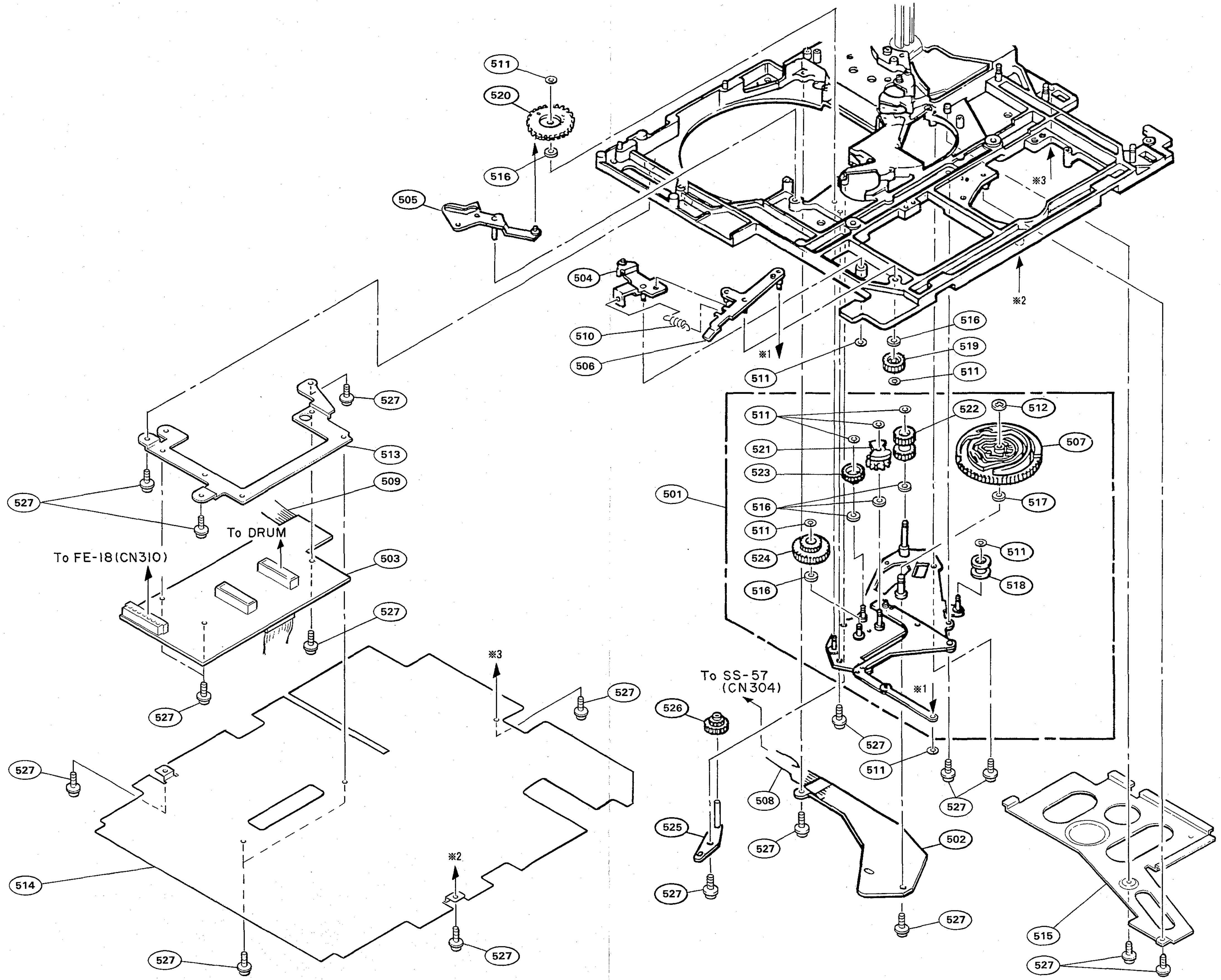
LOADING GEAR/PINCH ARM

No.	Part No.	SP	Description
401	A-8269-081-A	s	ARM ASSY, PINCH
402	A-6750-231-B	s	GEAR BLOCK ASSY
403	A-8278-012-C	s	MOTOR ASSY, LOADING
404	X-3678-048-1	o	BRACKET ASSY, MO (B)
405	X-3722-304-1	o	BASE ASSY
406	X-3722-306-4	s	GEAR ASSY
407	X-3722-307-1	s	PULLEY ASSY, MIDWAY
408	X-3722-319-1	s	ROLLER ASSY
409	X-3722-363-4	s	PINCH ASSY, SUB MO (B)
410	1-698-346-11	s	MOTOR, DC (LOADING)
411	1-948-710-11	s	HARNESS (TAPE TOP)
412	2-279-715-01	o	RIVET, NYLON
413	3-321-813-01	s	WASHER, COTTER POLYETHYLENE
414	3-559-408-11	s	WASHER, POLYETHYLENE, DIA.1.2
415	3-668-508-00	s	SPRING, TENSION
416	3-679-067-03	o	BRACKET, SENSER (TT)
417	3-701-438-01	s	WASHER
418	3-722-382-01	s	ROLLER, PINCH ARM
419	3-722-390-01	o	HOOK, SPRING, SHUTTER
420	3-184-594-01	s	FLANGE (P), UPPER
421	3-722-401-02	s	FLANGE (A), LOWER
422	3-722-460-01	o	SHUTTER, CASSETTE DETECTION
423	3-723-064-01	s	GEAR (M1)
424	3-723-065-01	s	GEAR (M2)
425	3-729-011-01	s	SPRING, COMPRESSION
426	3-729-013-21	s	SCREW(M1.4X2.5),WASHERHEAD(+P)
427	3-729-046-03	o	GUARD, PINCH TAPE
428	3-729-081-01	o	RETAINER (A), SCREW
429	3-729-082-01	o	RETAINER (B), SCREW
430	3-729-084-21	s	BOLT (M2X5), HEXAGON HOLE
431	3-729-098-01	s	WASHER, SPRING
432	3-732-988-01	s	SCREW (M2X2.5)

LOADING GEAR/PINCH ARM


403
426
426
410
426
426
411
412
402
404
432
416
424
423
414
414
SET SCREW, HEXAGON
2×2.5 (FLAT POINT)
413
431
427
409
420
408
401
421
425
414
431
418
414
417
426
429
430
426
428
430
415
422
414
406
407
426
428
430
To FRAME
To FRAME
426
405
419
426
426
428
430
419
426

CAM GEAR


※1
※2
※3
To DRUM
To FE-18(CN310)
※2
※3
To SS-57
(CN304)
※1

CAM GEAR

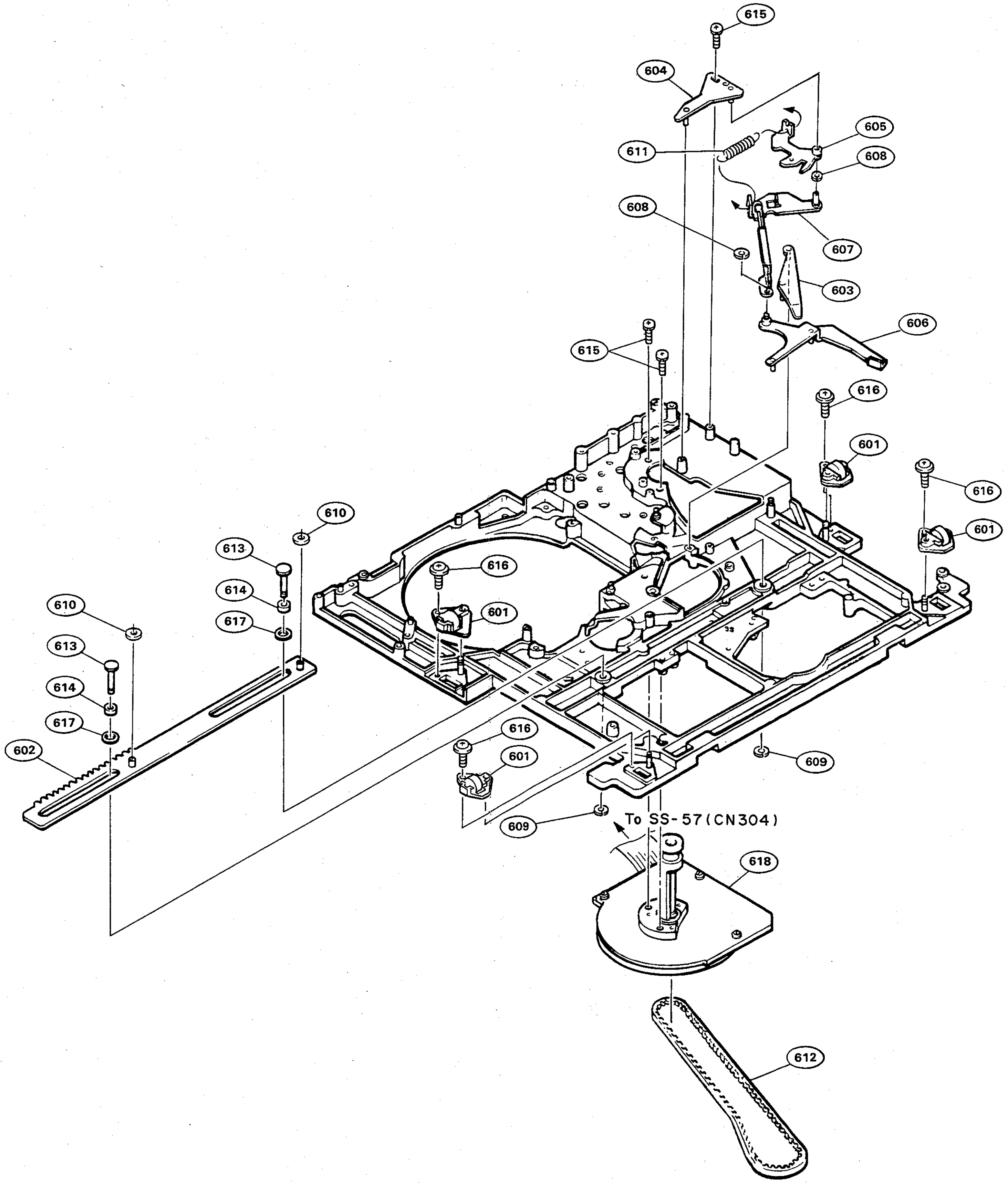
No.	Part No.	SP	Description
501	A-6750-233-B	s	GEAR SUB ASSY, CAM
502	A-8275-594-A	o	MOUNTED CIRCUIT BOARD, SR-55
503	A-8275-595-A	o	MOUNTED CIRCUIT BOARD, DR-254
504	X-3722-308-1	o	LEVER ASSY, RELEASE, ST
505	X-3722-316-1	o	ARM ASSY, DRIVING
506	X-3722-357-1	o	LINK ASSY, EJECT
507	X-3722-369-2	s	CAM ASSY, FUNCTION
508	1-765-130-11	s	CABLE, FLAT (1.0MM) (8 CORE)
509	1-765-133-11	s	CABLE, FLAT (1.0MM) (16 CORE)
510	3-531-794-00	s	SPRING, TENSION
511	3-559-408-11	s	WASHER, POLYETHYLENE, DIA.1.2
512	3-669-595-00	s	WASHER (2), STOPPER
513	3-679-541-02	o	BRACKET, DR
514	3-679-542-02	o	PLATE, SHIELD
515	3-679-575-01	o	COVER, CAPSTAN
516	3-701-436-11	s	WASHER, 1.6 POLYETHYLENE
517	3-701-438-21	s	WASHER
518	3-722-369-01	s	PULLEY, IDLER
519	3-722-430-01	o	GEAR, JOINT
520	3-723-010-01	o	GEAR, REEL SLIDER DRIVING
521	3-723-080-02	o	GEAR, CLUB
522	3-723-081-01	o	GEAR (T)
523	3-723-082-02	o	GEAR, T DRIVING MIDWAY
524	3-723-083-02	o	GEAR, ST DRIVING
525	3-725-206-01	o	BRACKET, T GEAR
526	3-725-207-02	o	GEAR, T DRIVING
527	3-729-013-21	s	SCREW(M1.4X2.5),WASHERHEAD(+P)

PINCH PRESS MECHANISM

PINCH PRESS MECHANISM

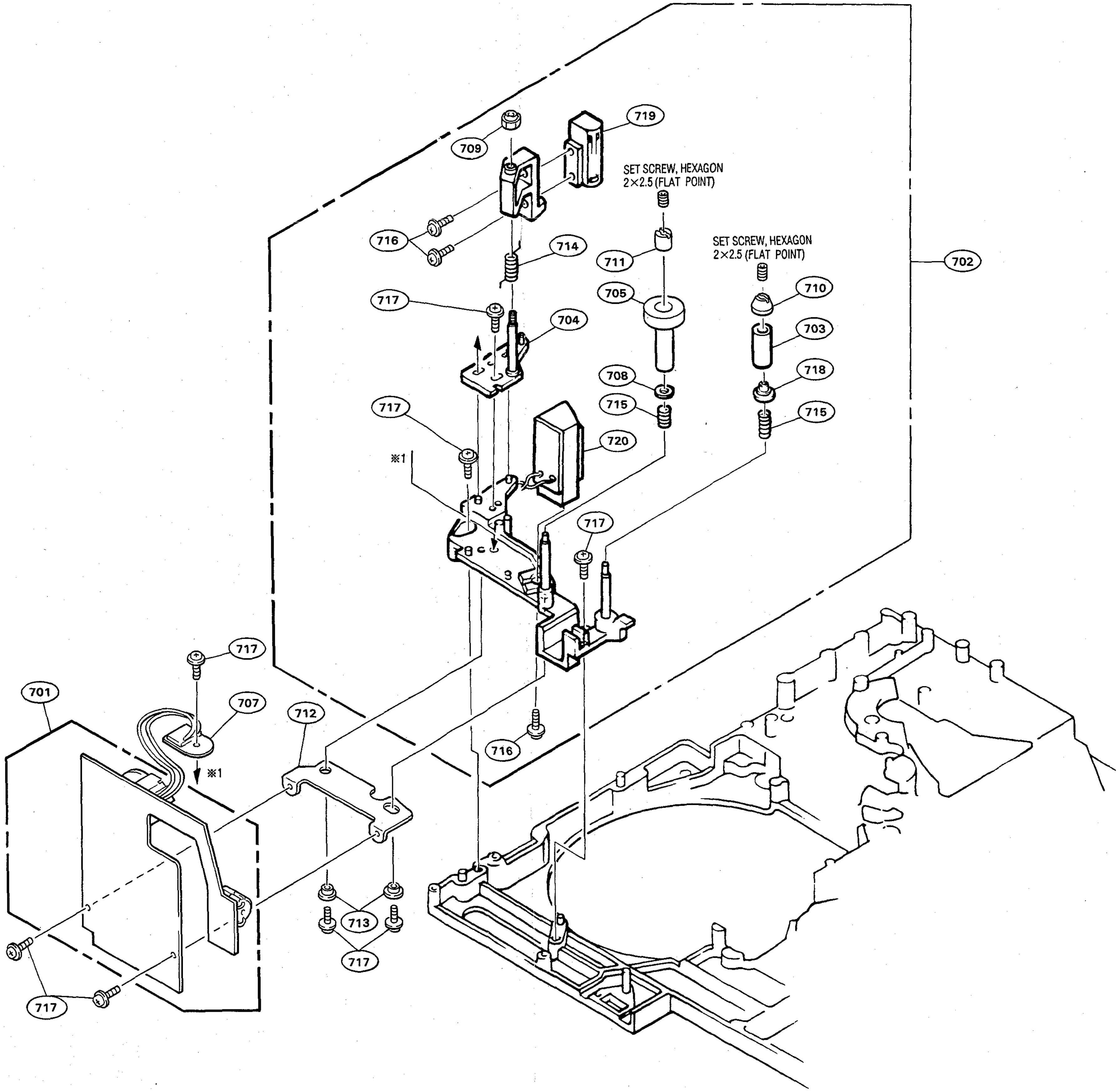
No.	Part No.	SP	Description
601	X-3722-301-1	s	ROLLER ASSY, REEL CHASSIS
602	X-3722-309-2	o	SLIDER ASSY, REEL
603	X-3722-310-3	o	LEVER ASSY, BRAKE
604	X-3722-311-1	o	SUPPORT ASSY, P LEVER
605	X-3722-312-1	o	LEVER (C) ASSY, PRESS
606	X-3722-345-1	o	JOINT ASSY, PINCH
607	X-3722-346-2	o	LEVER ASSY, PRESS
608	3-559-408-00	s	POLY-WASHER, 1.2 DIA
609	3-559-408-11	s	WASHER, POLYETHYLENE, DIA.1.2
610	3-701-439-21	s	WASHER
611	3-701-788-XX	s	SPRING, TENSION (15T)
612	3-722-452-01	s	BELT, TIMING
613	3-723-008-01	o	RETAINER, ROLLER
614	3-723-009-01	s	ROLLER, SLIDER PLATE
615	3-729-012-01	s	SCREW (M2X5)
616	3-729-013-21	s	SCREW(M1.4X2.5),WASHERHEAD(+P)
617	3-729-025-01	s	WASHER
618	1-698-345-12	s	MOTOR, DC (CAPSTAN)

PINCH PRESS MECHANISM


615
604
605
611
608
608
607
603
606
615
616
601
616
601
610
613
616
614
601
617
610
613
614
617
602
616
601
609
609
To SS-57(CN304)
618
612

CTL HEAD BASE

CTL HEAD BASE


719
709
SET SCREW, HEXAGON
2×2.5 (FLAT POINT)
716
714
711
SET SCREW, HEXAGON
2×2.5 (FLAT POINT)
702
705
710
717
704
703
708
718
715
715
717
720
※1
717
717
701
707
712
※1
716
713
717
717

CTL HEAD BASE

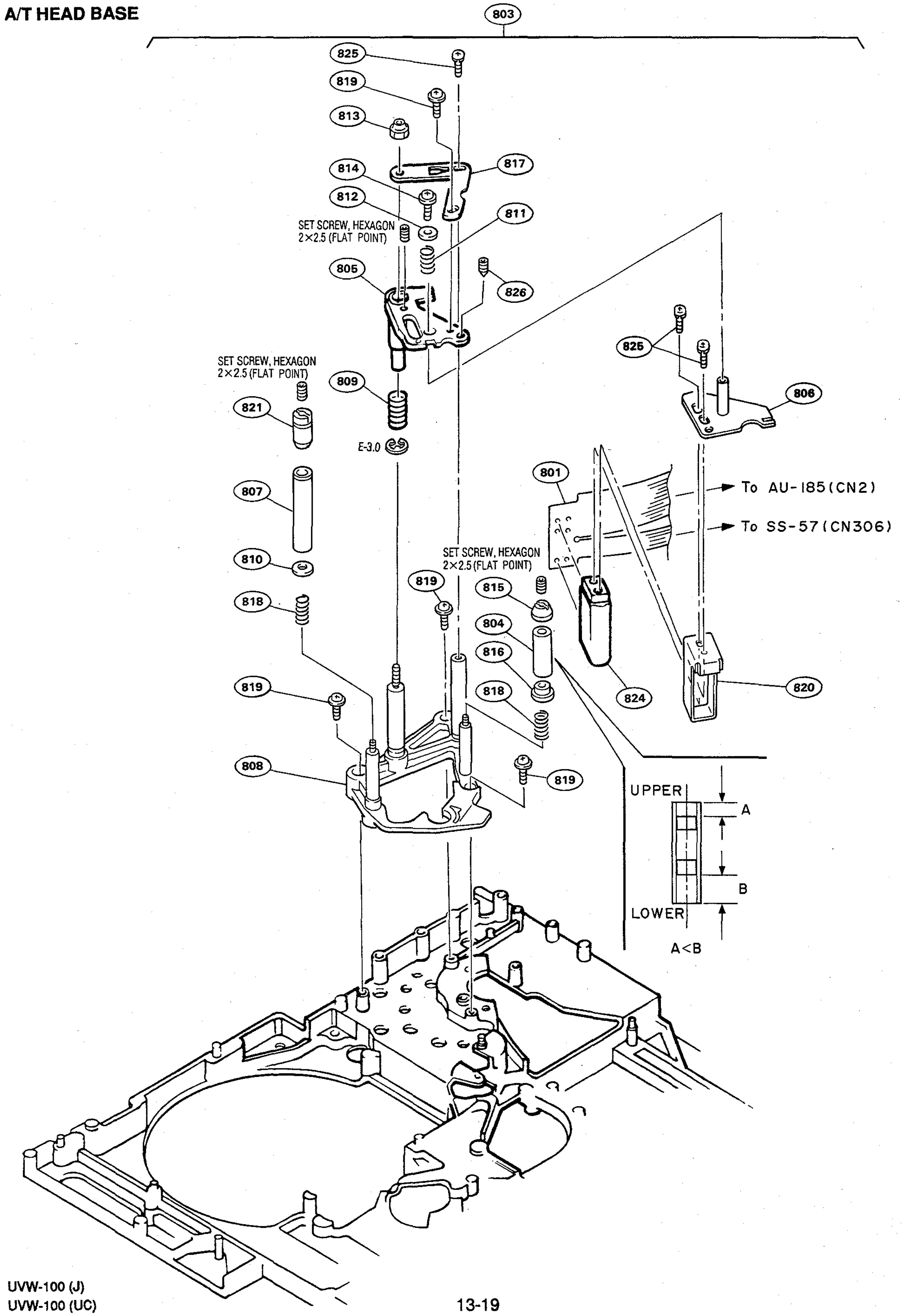
No.	Part No.	SP	Description
701	A-8275-593-A	o	MOUNTED CIRCUIT BOARD, FE-18
702	A-6736-080-F	o	HEAD SUB ASSY, CTL
703	X-3722-322-1	s	ROLLER ASSY, POM
704	X-3722-341-1	o	PLATE ASSY, HEAD, CTL
705	X-3722-342-4	s	IR-1 ASSY
707	1-810-462-11	s	SENSER, DEW CONDENSATION
708	3-557-565-00	s	WASHER, 1.4 DAI, SMALL
709	3-698-829-01	s	NUT (M2)
710	3-722-400-02	s	FLANGE (C), UPPER
711	3-722-402-02	o	NUT, IR
712	3-679-090-01	o	BRACKET, FE
713	3-722-420-01	s	SPACER, FE-4 HOLDER
714	3-723-092-02	s	SPRING
715	3-729-011-01	s	SPRING, COMPRESSION
716	3-729-012-01	s	SCREW (M2X5)
717	3-729-013-21	s	SCREW(M1.4X2.5),WASHERHEAD(+P)
718	3-742-003-01	s	FLANGE (S), LOWER
719	8-825-560-41	s	HEAD, CTL RS-253-21
720	8-825-772-62	s	HEAD, ERASE EF291-21A

A/T HEAD BASE

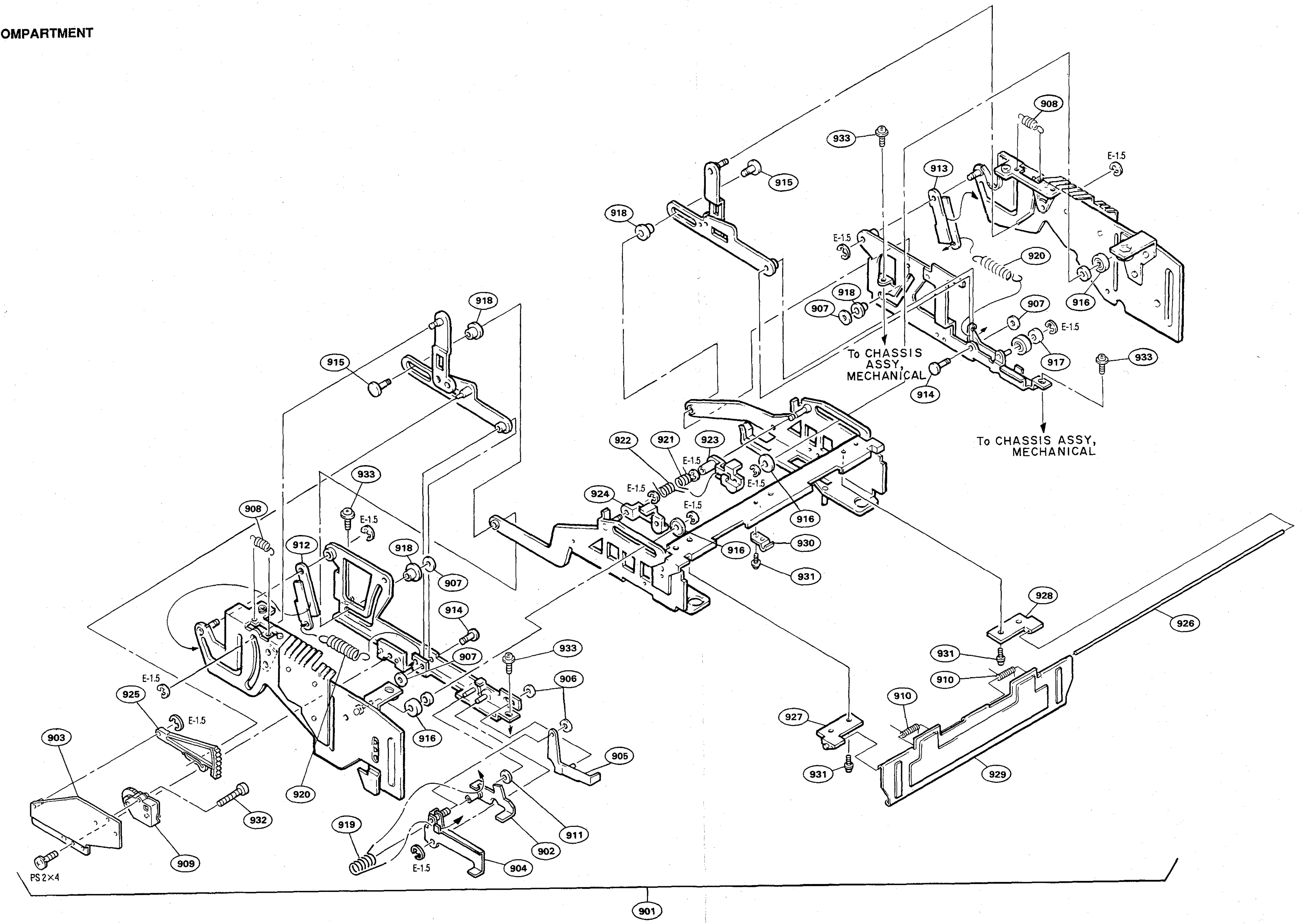
A/T HEAD BASE

No.	Part No.	SP	Description
801	1-651-202-11	o	FLEXIBLE CARD WIRE, FL-160
803	A-8310-259-A	o	HEAD ASSY, A/T
804	X-3722-319-1	s	ROLLER ASSY
805	X-3678-054-1	o	A/T ASSY, UPPER
806	X-3722-339-5	o	PLATE (LOWER) ASSY, A/T
807	X-3678-049-2	s	IR-11 ASSY
808	X-3678-055-2	o	BASE ASSY, A/T
809	3-885-103-00	s	SPRING, COMPRESSION
810	3-557-565-00	s	WASHER, 1.4 DAI, SMALL
811	3-669-316-00	s	SPRING, COMPRESSION
812	3-695-567-01	s	WASHER, M SLIDER
813	3-698-829-01	s	NUT (M2)
814	3-703-502-31	s	SCREW
815	3-722-400-02	s	FLANGE (C), UPPER
816	3-722-401-02	s	FLANGE (A), LOWER
817	3-679-097-01	o	DAMPER, A/T
818	3-729-011-01	s	SPRING, COMPRESSION
819	3-729-013-21	s	SCREW(M1.4X2.5),WASHERHEAD(+P)
820	3-679-076-01	o	CASE, SHIELD, A/T
821	3-722-402-02	o	NUT, IR
824	8-825-779-51	s	HEAD, AU PS-244-2103K
825	3-729-012-21	s	SCREW (M2X4)
826	3-686-560-01	o	SCREW (2X5), HOLE, HEXAGON

A/T HEAD BASE


SET SCREW, HEXAGON 2×2.5 (FLAT POINT)
SET SCREW, HEXAGON 2×2.5 (FLAT POINT)
E-3.0
To AU-185(CN2)
To SS-57(CN306)
SET SCREW, HEXAGON 2×2.5 (FLAT POINT)
UPPER
A
B
LOWER
A<B

CASSETTE-UP COMPARTMENT


908
933
915
913
E-1.5
918
E-1.5
920
918
907
907
916
E-1.5
917
933
To CHASSIS ASSY, MECHANICAL
914
To CHASSIS ASSY, MECHANICAL
918
915
922
921
923
E-1.5
924
E-1.5
E-1.5
E-1.5
916
933
916
930
E-1.5
931
908
912
918
907
928
914
926
933
907
931
906
910
E-1.5
910
925
E-1.5
927
916
905
929
903
931
920
932
919
911
902
909
904
E-1.5
PS 2×4
901

CASSETTE-UP COMPARTMENT

No.	Part No.	SP	Description
901	A-8310-258-A	s	CASSETTE COMPARTMENT ASSY, (RP)
902	X-3722-358-3	s	STOPPER ASSY
903	X-3678-044-1	o	BRACKET ASSY, DAMPER
904	X-3678-046-2	o	PLATE ASSY, LOCK (B)
905	X-3722-412-1	o	LEVER ASSY, RELEASE
906	3-315-384-11	s	WASHER, STOPPER
907	3-321-813-01	s	WASHER, COTTER POLYETHYLENE
908	3-674-402-00	s	SPRING, TENSION
909	4-614-428-01	s	DAMPER
910	3-695-515-02	o	SPRING
911	3-701-436-21	s	WASHER, POLYEHTHYLENE
912	3-723-016-01	o	LEVER (RIGHT), LID OPEN
913	3-723-017-01	o	LEVER (LEFT), LID OPEN
914	3-723-042-01	o	SHAFT, LINK
915	3-723-043-01	o	SHAFT, CASSETTE HOLDER
916	3-723-044-01	o	RETAINER, BEARING
917	3-723-044-11	o	RETAINER, BEARING
918	3-723-045-02	o	ROLLER, HOLDER SLIDE
919	3-723-052-01	s	SPRING (A), TORSION
920	3-723-053-01	o	SPRING (A), TENSION
921	3-723-054-01	o	SPRING (L), CASSETTE RETAINER
922	3-723-055-01	o	SPRING (R), CASSETTE RETAINER
923	3-723-067-03	o	RETAINER (LEFT), CASSETTE
924	3-723-068-01	o	RETAINER (RIGHT), CASSETTE
925	3-678-597-01	o	DRIVING GEAR, DAMPER
926	3-723-087-01	s	SHAFT (A), BLIND PLATE
927	3-723-088-02	s	GUIDE (RIGHT), CASSETTE
928	3-723-089-02	s	GUIDE (LEFT), CASSETTE
929	3-723-090-03	s	PLATE (A), BLIND
930	3-725-298-01	o	PLATE, INDICATION, BLIND
931	3-729-013-21	s	SCREW (M1.4X2.5), WASHERHEAD (P)
932	3-703-502-81	s	SCREW (M1.4X6), WASHERHEAD (P)
933	3-729-012-01	s	SCREW (PS2X5)

TOP FRAME/REAR FRAME

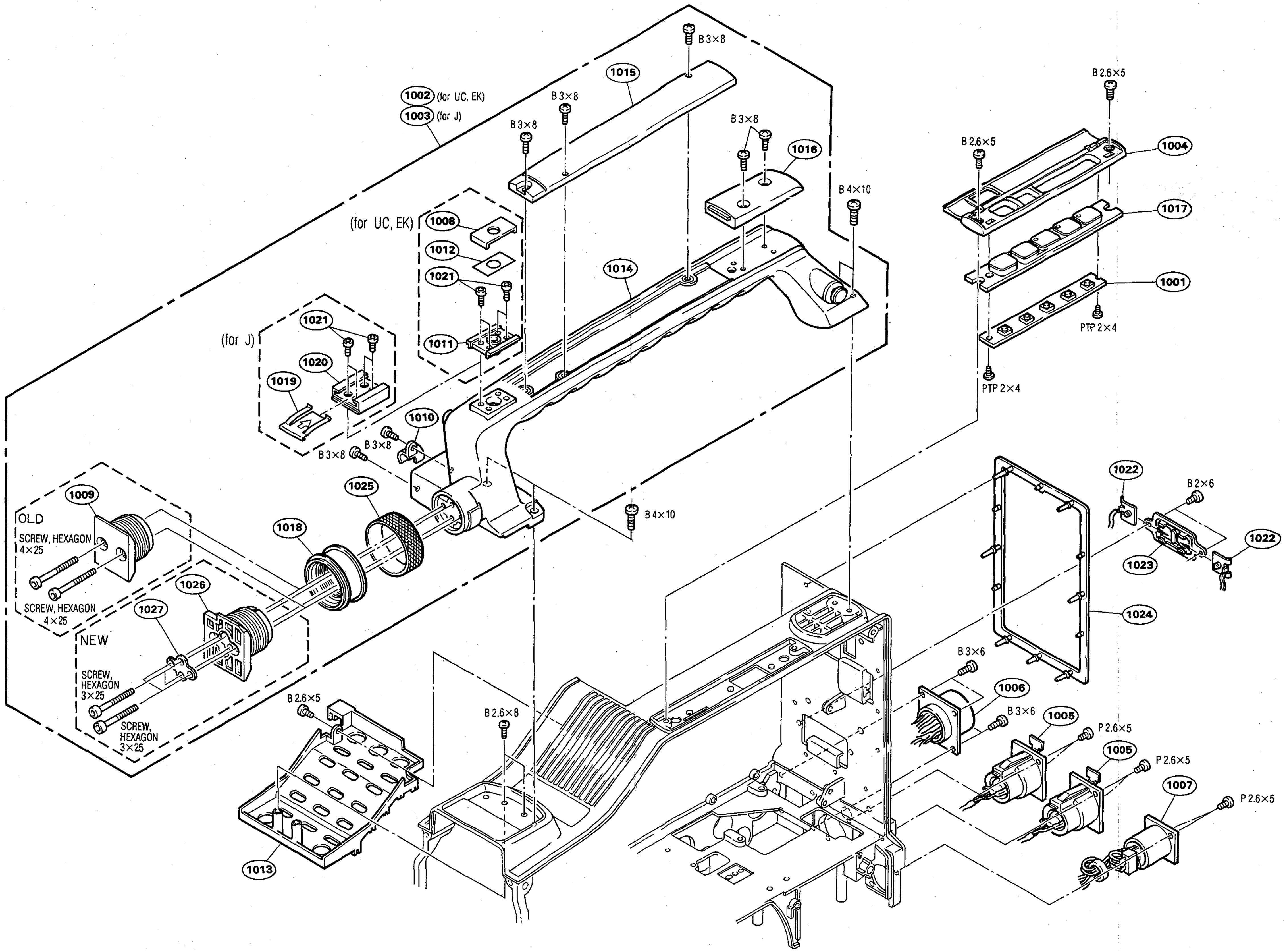
TOP FRAME/REAR FRAME

No.	Part No.	SP	Description	
1001	A-8275-589-A	o	MOUNTED CIRCUIT BOARD, KY-285	
1002	A-8278-010-D	o	HANDLE ASSY (UC,EK)	
1003	A-8278-011-D	o	HANDLE ASSY (J)	
1004	X-3678-057-1	o	SUBU ASSY,KEY PANEL	
1005	1-509-184-51	s	CONNECTOR (RECEPTACLE) 3P	
1006	1-562-244-00	o	RECEPTACLE, CONNECTOR (PIN) 26	
1007	1-564-603-11	s	CONNECTOR (WITH DC SW) 4P	
1008	2-277-468-01	o	PLATE, ORNAMENTAL, CAMERA SHOE (UC,EK)	
1009	3-168-335-01	o	SHOE (2), VF SLIDE	*1
1010	3-176-706-11	o	CLAMP, CABLE	
1011	3-657-700-00	s	BRACKET, ACCESSORY (UC,EK)	
1012	3-672-213-00	o	SHEET, ADHESIVE (UC,EK)	
1013	3-679-030-02	o	PB RAIL,UPPER	
1014	3-679-033-03	o	HANDLE	*1
	3-679-033-04	o	HANDLE	*2
1015	3-679-035-01	o	LID,HANDLE	
1016	3-679-036-01	o	LID,HANDLE(2)	
1017	3-679-501-01	o	COVER,RUBBER KEY BOARD	
1018	3-679-543-11	o	RING(D),LOCK	
1019	3-688-754-11	s	SPRING (J)	
1020	3-688-755-12	s	SHOE, ACCESORY (J)	
1021	3-689-039-11	s	SCREW, HEXAGON 2X6	
1022	3-717-996-04	s	TERMINAL BOARD	
1023	3-718-028-01	o	HOLDER, TERMINAL	
1024	3-718-032-01	s	SHEET, RUBBER, DROP PROTECTION	
1025	3-720-919-01	o	RUBBER, LOCK RING	
1026	3-686-261-02	s	SHOE (3), VF SLIDE	*2
1027	3-687-070-01	o	WASHER SHOE	*2

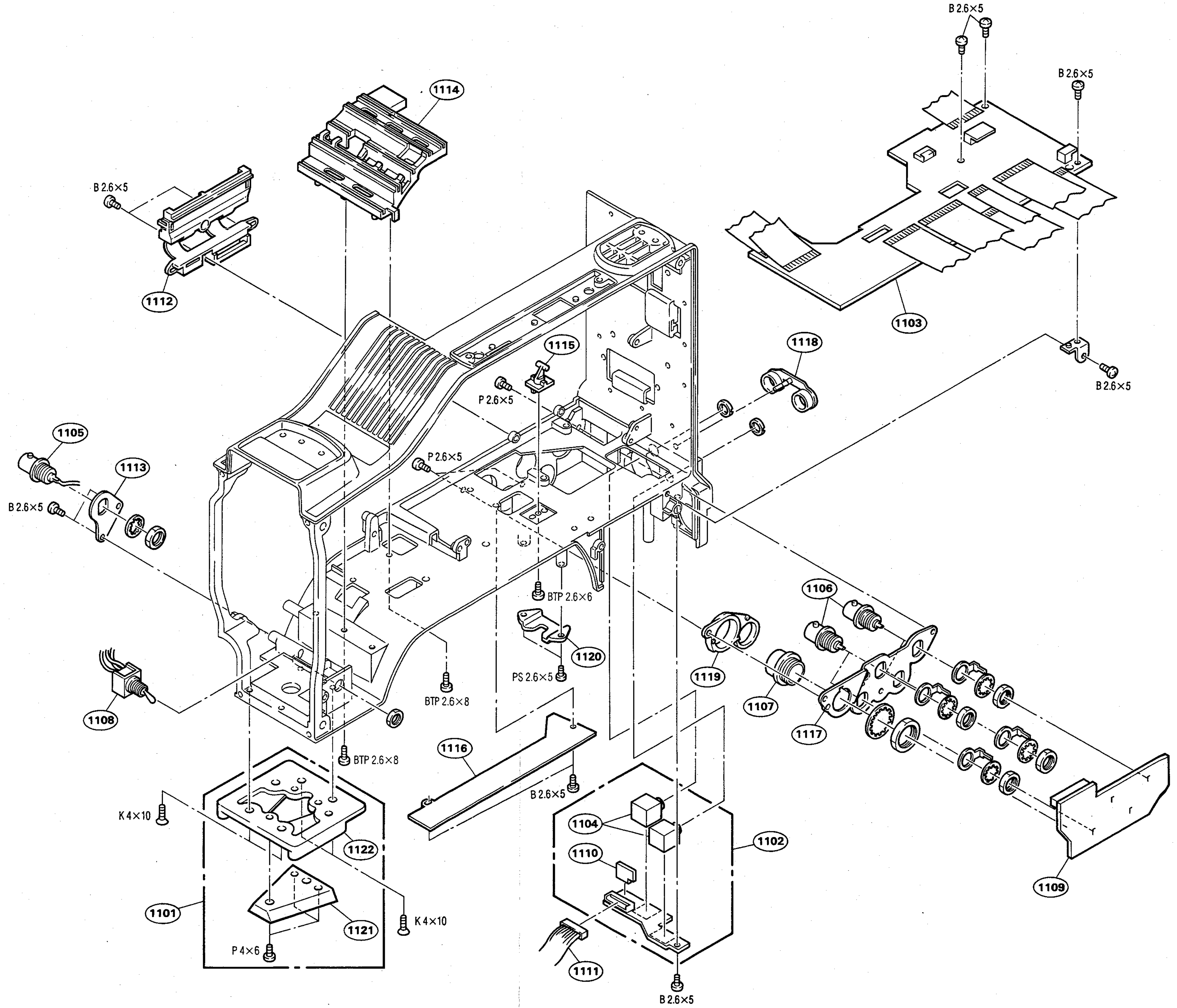
Applicable Serial No.
*1) UC : Up to 12025
EK : Up to 43730
J : Up to 30520

*2) UC : 12026 and Higher
EK : 43731 and Higher
J : 30521 and Higher

TOP FRAME/REAR FRAME


B3×8
1015
1002 (for UC, EK)
1003 (for J)
B3×8
B3×8
B3×8
1016
B4×10
B2.6×5
B2.6×5
1004
1017
1001
PTP 2×4
PTP 2×4
(for UC, EK)
1008
1012
1021
1011
1014
(for J)
1021
1020
1019
1010
B3×8
B3×8
1025
1009
OLD
SCREW, HEXAGON 4×25
SCREW, HEXAGON 4×25
1018
1026
1027
NEW
SCREW, HEXAGON 3×25
SCREW, HEXAGON 3×25
B4×10
1022
B2×6
1022
1023
1024
B3×6
1006
B3×6
1005
P2.6×5
1005
P2.6×5
1007
P2.6×5
B2.6×5
B2.6×8
1013

BOTTOM FRAME


B2.6×5
B2.6×5
1114
B2.6×5
1112
1103
1118
B2.6×5
1115
P2.6×5
P2.6×5
1105
1113
B2.6×5
1106
BTP 2.6×6
1120
PS 2.6×5
1119
1107
1117
1108
BTP 2.6×8
1116
BTP 2.6×8
B2.6×5
1104
1102
1110
1109
K4×10
1122
1101
1121
K4×10
P4×6
1111
B2.6×5

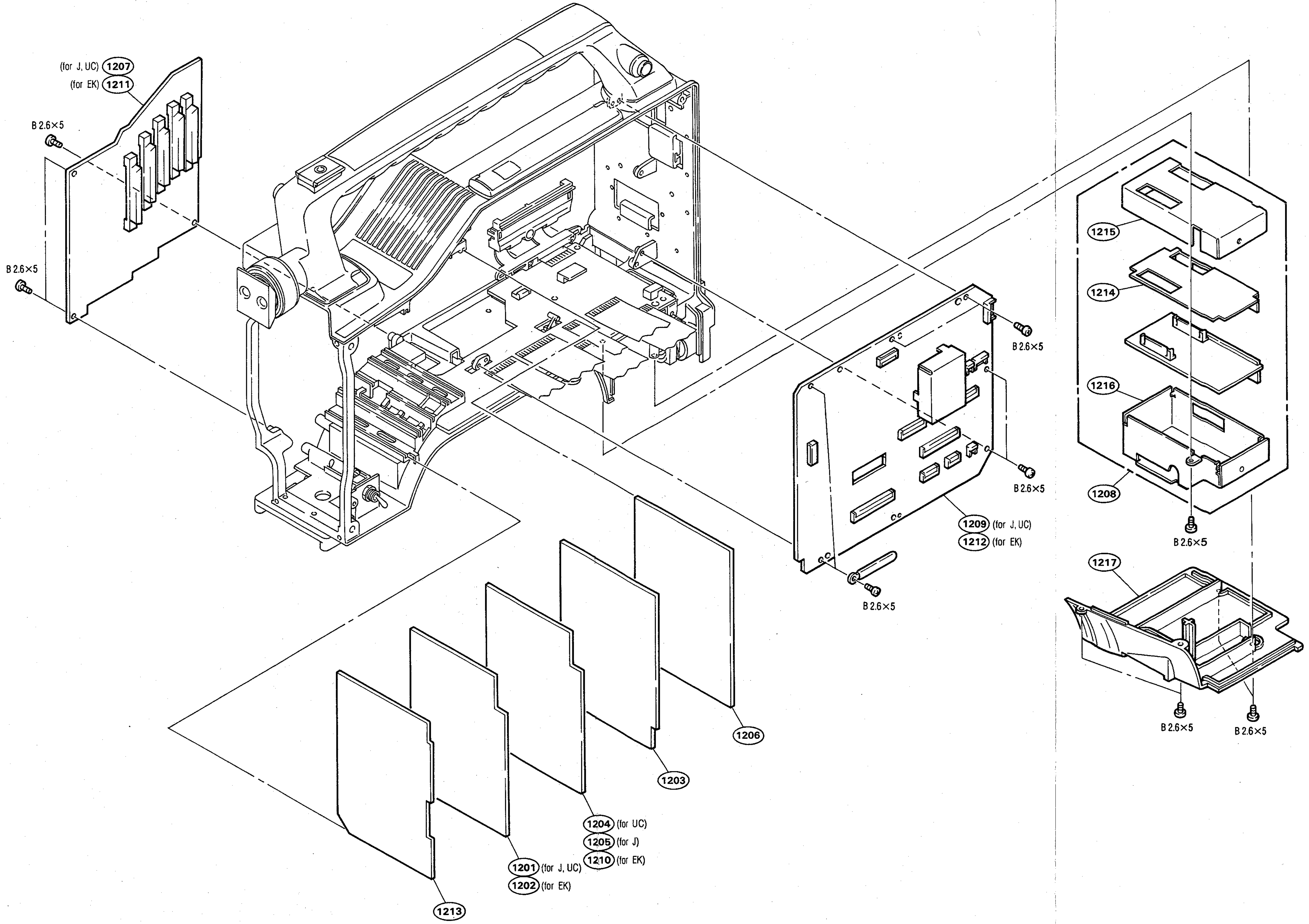
BOTTOM FRAME

No.	Part No.	SP	Description
1101	A-7612-352-A	s	SHOE (A) ASSY, V
1102	A-8275-587-A	o	MOUNTED CIRCUIT BOARD, CN-936
1103	A-8275-590-A	o	MOUNTED CIRCUIT BOARD, MB-506
1104	1-507-980-41	o	JACK
1105	1-509-891-00	s	CONNECTOR, BNC
1106	1-562-261-41	s	CONNECTOR, COAXIAL(BNC)
1107	1-569-422-11	s	CONNECTOR (ROUND TYPE) 20P
1108	1-571-367-11	s	SWTCH, TOGGLE
1109	1-650-138-11	o	PRINTED CIRCUIT BOARD, CN-935
1110	1-651-988-11	o	PRINTED CIRCUIT BOARD, LED-214
1111	1-953-153-11	o	HARNESS, SUB (MB-CN)
1112	3-679-027-02	o	HOLDER,FLEXIBLE HARNESS
1113	3-679-028-01	o	BRACKET,BNC
1114	3-679-031-04	o	PB RAIL,LOWER
1115	3-679-061-01	o	PIN,STANDARD
1116	3-679-063-01	o	PLATE,CCZ
1117	3-679-064-01	o	BRACKET, CONNECTOR
1118	3-679-068-02	o	COVER,E R
1119	3-679-505-01	o	SPACER
1120	3-711-703-01	o	STOPPER
1121	3-716-391-01	o	WEDGE, MOUNTING
1122	3-729-065-03	s	SHOE (A), CAMERA

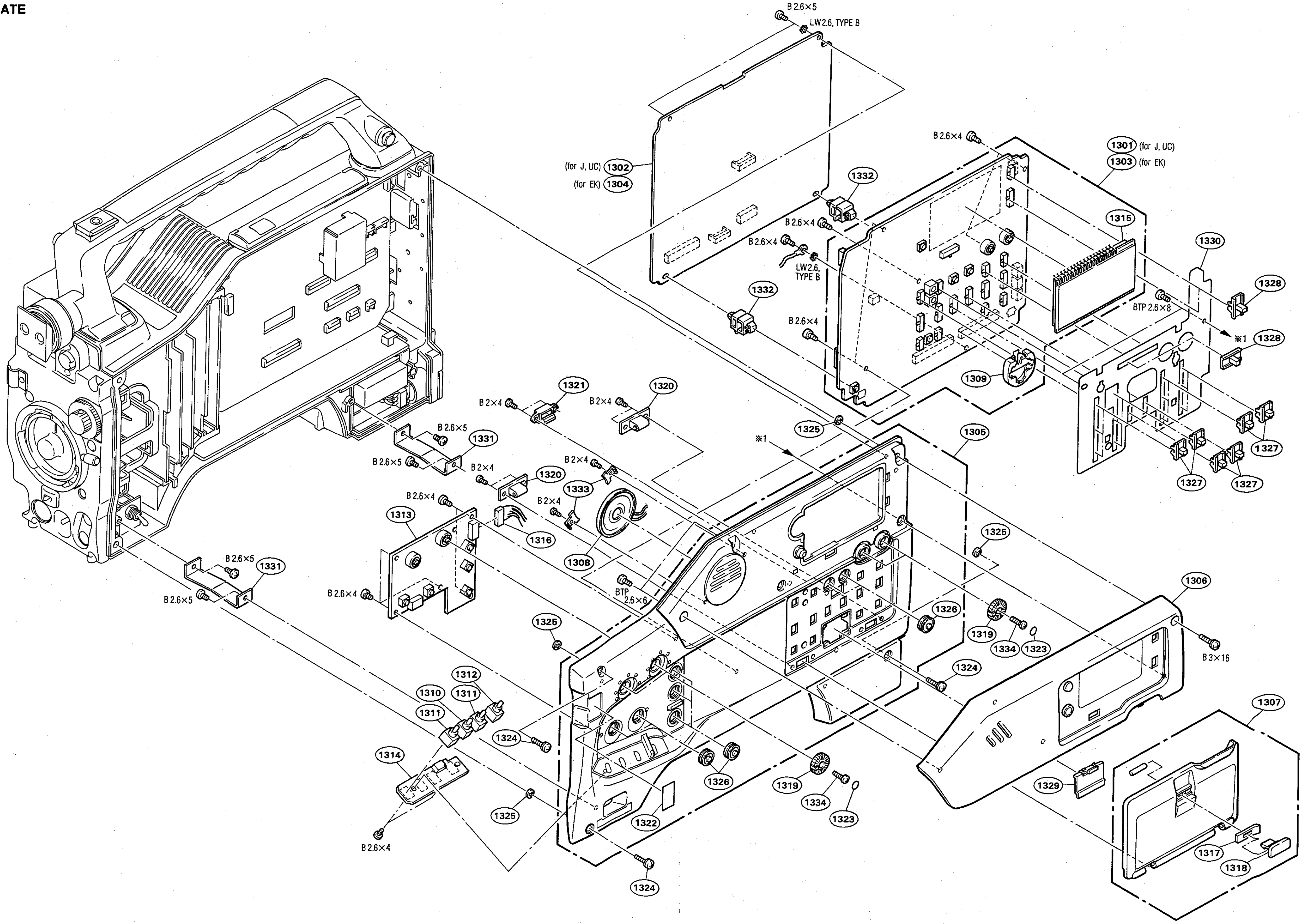
PRINTED CIRCUIT BOARD

No.	Part No.	SP	Description
1201	A-8263-940-A	o	MOUNTED CIRCUIT BOARD, IE-33U (J,UC)
1202	A-8263-942-A	o	MOUNTED CIRCUIT BOARD, IE-33UP (EK)
1203	A-8275-531-A	o	MOUNTED CIRCUIT BOARD, AT-85
1204	A-8275-582-A	o	MOUNTED CIRCUIT BOARD, ES-7 (UC)
1205	A-8275-583-A	o	MOUNTED CIRCUIT BOARD, ES-7 (J)
1206	A-8275-584-A	o	MOUNTED CIRCUIT BOARD, IF-454
1207	A-8275-585-A	o	MOUNTED CIRCUIT BOARD, MB-530 (J,UC)
1208	A-8275-588-A	o	MOUNTED CIRCUIT BOARD, DC-62
1209	A-8275-591-A	o	MOUNTED CIRCUIT BOARD, SS-57 (J,UC)
1210	A-8275-690-A	o	MOUNDED CIRCUIT BOARD, ES-7(P) (EK)
1211	A-8275-691-A	o	MOUNDED CIRCUIT BOARD, MB-530(P) (EK)
1212	A-8275-693-A	o	MOUNDED CIRCUIT BOARD, SS-57A (EK)
1213	A-8275-711-A	o	MOUNTED CIRCUIT BOARD, PR-208 (J,UC)
1214	3-679-071-02	o	INSULATOR, DD CON
1215	3-679-073-02	o	CASE, SHIELD (U)
1216	3-679-074-02	o	CASE, SHIELD (B)
1217	3-679-075-02	o	PANEL, BOTTOM

PRINTED CIRCUIT BOARD


(for J, UC) 1207
(for EK) 1211
B2.6×5
B2.6×5
B2.6×5
B2.6×5
1209 (for J, UC)
1212 (for EK)
B2.6×5
1215
1214
1216
1208
B2.6×5
1217
B2.6×5
B2.6×5
1206
1203
1204 (for UC)
1205 (for J)
1210 (for EK)
1201 (for J, UC)
1202 (for EK)
1213

RIGHT SIDE PLATE


B 2.6×5
LW2.6, TYPE B
B 2.6×4
1301 (for J, UC)
1303 (for EK)
(for J, UC) 1302
(for EK) 1304
1332
B 2.6×4
B 2.6×4
LW2.6, TYPE B
1315
1330
1328
1332
B 2.6×4
BTP 2.6×8
※1 1328
1309
1327
1327
1327
1321
1320
B 2×4
B 2×4
B 2.6×5
1331
1325
※1
1305
B 2.6×5
B 2×4
1320
B 2×4
1333
B 2×4
B 2.6×4
1313
1316
1308
1325
B 2.6×5
1331
B 2.6×5
B 2.6×4
BTP 2.6×6
1306
1326
1319
1334
1323
B 3×16
1325
1324
1312
1310
1311
1311
1324
1307
1314
1326
1319
1334
1323
1329
1325
1322
1317
1318
B 2.6×4
1324

RIGHT SIDE PLATE

No.	Part No.	SP	Description
1301	A-8275-586-A	o	MOUNTED CIRCUIT BOARD, TC-86 (J,UC)
1302	A-8275-592-A	o	MOUNTED CIRCUIT BOARD, VO-46 (J,UC)
1303	A-8275-692-A	o	MOUNDED CIRCIUT BOARD, TC-86A (EK)
1304	A-8275-694-A	o	MOUNDED CIRCUIT BOARD, VO-46A (EK)
1305	X-3678-050-3	o	PANEL ASSY,R SUB
1306	X-3678-051-3	o	PAD ASSY,R
1307	X-3678-052-4	o	DOOR ASSY,TC
1308	1-503-854-11	s	SPEAKER (3.6CM)
1309	1-550-104-33	s	HOLDER, BATTERY
1310	1-570-984-11	s	SWITCH, TOGGLE
1311	1-570-985-11	s	SWITCH, TOGGLE
1312	1-571-396-11	s	SWITCH, TOGGLE
1313	1-651-579-11	o	PRINTED CIRCUIT BOARD, SW-654
1314	1-651-580-11	o	PRINTED CIRCUIT BOARD, SW-655
1315	1-810-463-11	s	DISPLAY, LCD
1316	1-953-154-11	o	HARNESS, SUB (TC-SW)
1317	3-171-671-03	s	RUBBER, LEVER, TC
1318	3-171-672-01	s	LEVER, TC
1319	3-171-996-03	s	KNOB (R), VR
1320	3-175-616-01	s	SUPPORT, HINGE
1321	3-175-621-01	s	PLATE, LOCK
1322	3-176-516-01	o	LABEL, FILTER
1323	3-178-098-11	s	SHEET (VR), INSULATING
1324	3-178-213-41	s	SCREW, B 3X14
1325	3-669-596-01	s	WASHER (2.3), STOPPER
1326	3-676-244-00	s	COVER, SWITCH
1327	3-679-077-01	s	KNOB(S),SW
1328	3-679-078-01	s	KNOB(L),SW
1329	3-679-081-01	o	COVER,BATTERY
1330	3-679-088-03	s	KNOB SHEET,SW
1331	3-679-092-01	s	STRAP
1332	3-682-080-00	o	HINGE (A), PCB
1333	3-724-726-01	o	HOLDER, SPEAKER
1334	7-627-552-37	s	SCREW, PRECISION P 1.7X3

LEFT SIDE PLATE

LEFT SIDE PLATE

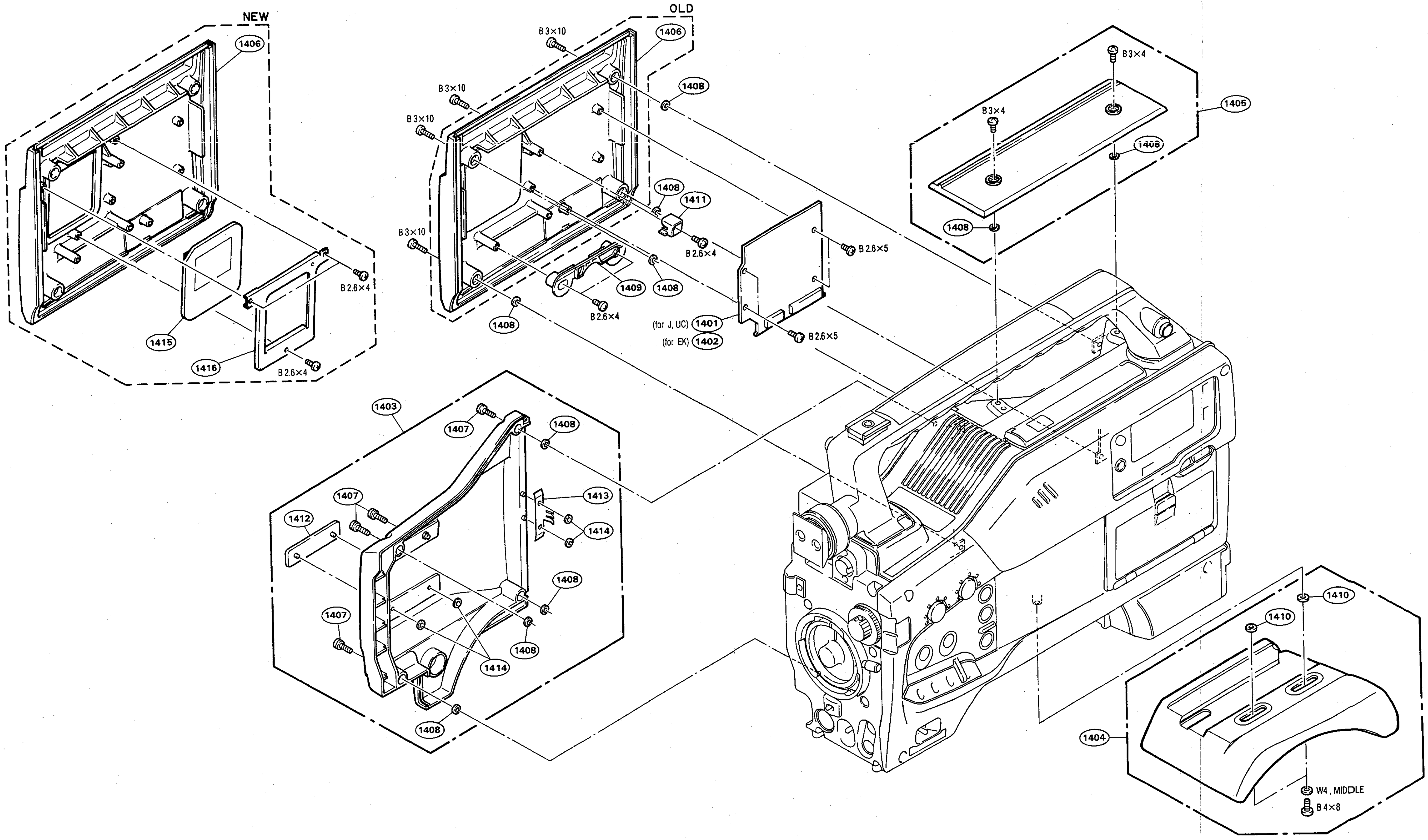
No.	Part No.	SP	Description	
1401	A-8275-596-A	o	MOUNTED CIRCUIT BOARD, AU-185 (J,UC)	
1402	A-8275-695-A	o	MOUNTED CIRCUIT BOARD, AU-185P (EK)	
1403	A-8278-008-E	o	PANEL ASSY,LEFT	
1404	A-8278-009-A	s	PAD ASSY,SHOULDER	
1405	A-8278-013-A	o	PANEL ASSY,TOP	
1406	X-3678-045-2	o	PANEL,CASSETTE SUBASSY	*1
	X-3678-045-3	o	PANEL,CASSETTE SUBASSY	*2
1407	3-178-213-31	s	SCREW, B 3X12	
1408	3-669-596-01	s	WASHER (2.3), STOPPER	
1409	3-679-059-01	o	SUPPORT,TAPE	
1410	3-687-116-01	o	WASHER (4), STOPPER	
1411	3-725-286-01	o	STOPPER, CASSETTE	
1412	3-176-138-01	o	EMBLEM, HAYPER HAD	
1413	3-683-014-02	o	FINGER, SHIELD(F2)	
1414	7-624-200-01	s	NUT, PUSH 1.5	
1415	3-679-024-01	o	WINDOW, CASSETTE COMPARTMENT	*2
1416	3-689-853-01	o	BRACKET, CW	*2

Applicable Serial No.

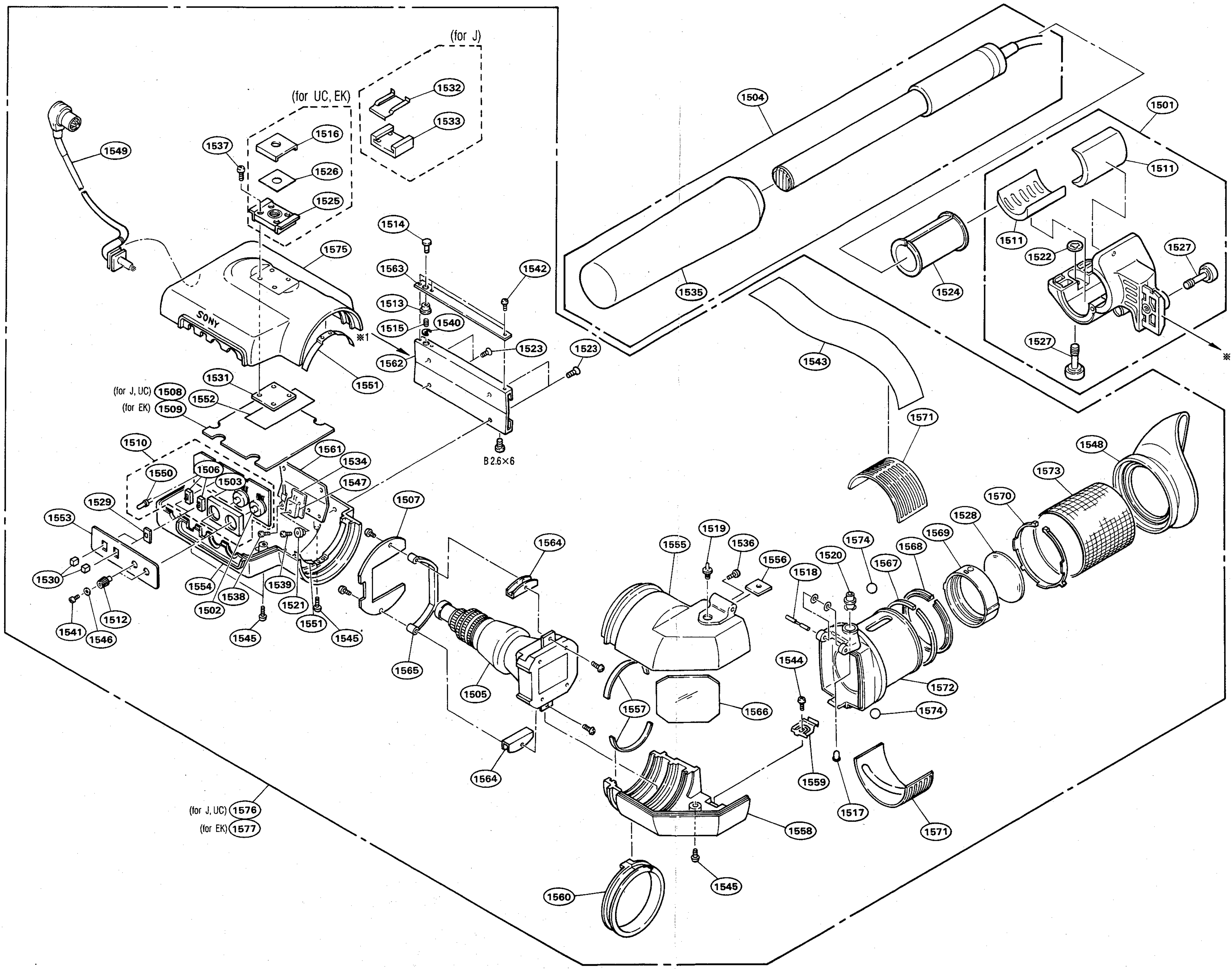
*1) UC : Up to 12025
EK : Up to 43730
J : Up to 30520

*2) UC : 12026 and Higher
EK : 43731 and Higher
J : 30521 and Higher

LEFT SIDE PLATE


NEW
1406
B2.6×4
1415
1416
B2.6×4
OLD
B3×10
1406
B3×10
B3×10
1408
1408
1411
B3×10
B2.6×4
B2.6×5
1409
1408
B2.6×4
1408
(for J, UC) 1401
(for EK) 1402
B2.6×5
B3×4
1405
B3×4
1408
1408
1403
1407
1408
1407
1413
1412
1414
1408
1407
1408
1414
1408
1410
1410
1404
W4, MIDDLE
B4×8

VIEWFINDER


(for J)
1532
1533
(for UC, EK)
1516
1537
1526
1525
1549
1504
1501
1511
1511
1575
1514
1563
1542
1513
1515
1540
1523
1523
1562
※1
1551
1531
(for J, UC) 1508
(for EK) 1509
1552
1510
1561
1534
1547
1550
1506
1503
1529
1553
1530
1554
1538
1502
1539
1521
1551
1545
1545
1541
1546
1512
B2.6×6
1507
1564
1565
1505
1564
1535
1524
1522
1527
1527
※1
1543
1571
1548
1573
1570
1528
1569
1568
1567
1574
1520
1518
1519
1536
1556
1555
1557
1566
1544
1572
1574
1559
1517
1571
1558
1560
1545
(for J, UC) 1576
(for EK) 1577

VIEWFINDER

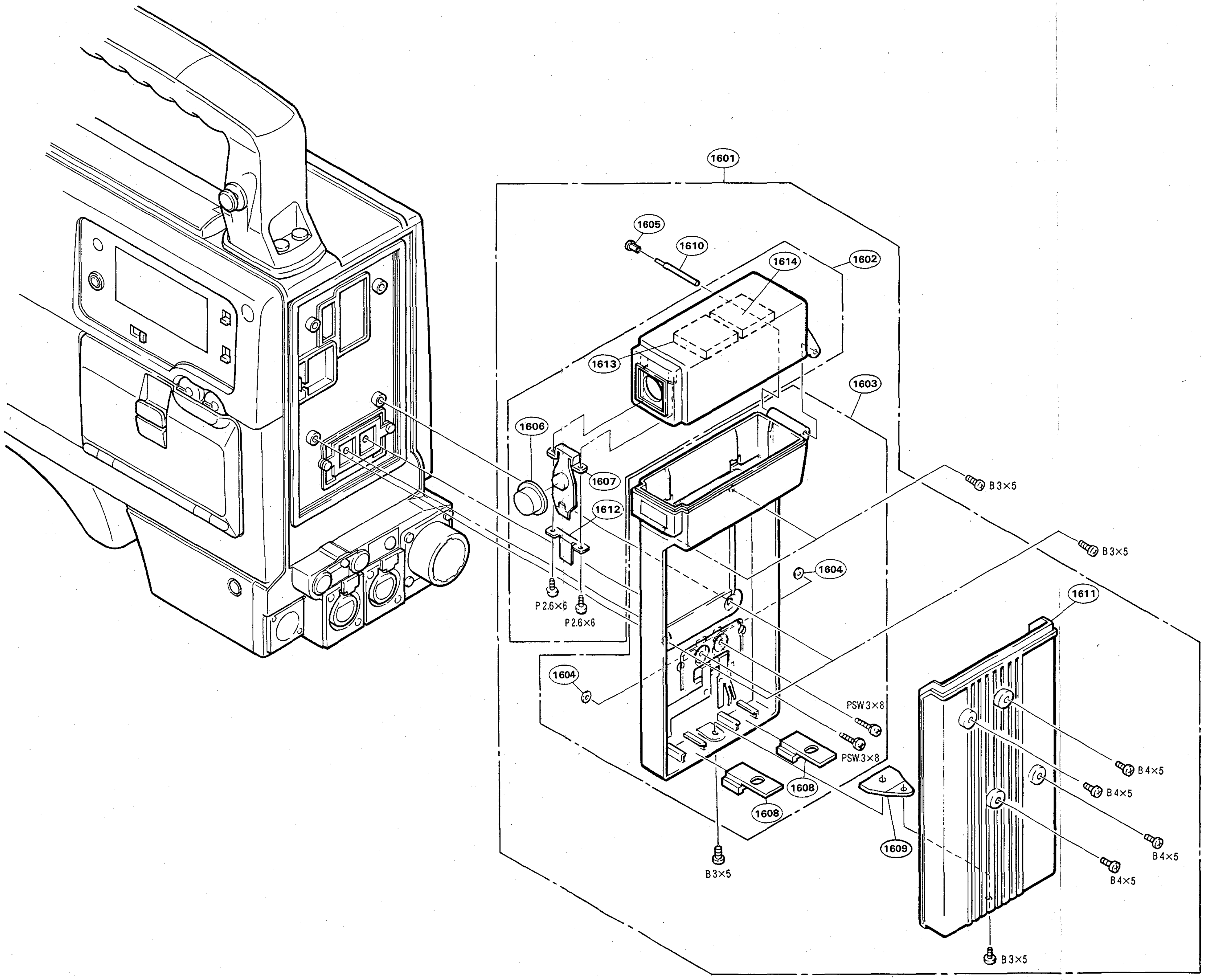
No.	Part No.	SP	Description
1501	X-3678-056-1	o	HOLDER ASSY, MIC
1502	1-226-368-00	s	RES, VAR CARBON 10k "BRIGHT"
1503	1-230-075-00	s	RES, VAR CARBON 2k "CONTRAST"
1504	1-542-233-12	o	MICROPHONE
1505	⚠1-546-078-21	s	CRT/DY ASSY
1506	1-570-845-11	s	SWITCH, SLIDE "TALLY" "PEAKING"
1507	1-589-127-11	o	MOUNTED CIRCUIT BOARD, LED
1508	1-589-128-31	s	MOUNTED CIRCUIT BOARD, "MAIN" (J,UC)
1509	1-589-128-41	s	MOUNTED CIRCUIT BOARD, "MAIN" (EK)
1510	1-589-129-32	s	MOUNTED CIRCUIT BOARD, "SW"
1511	2-113-294-01	s	CUSHION, MICROPHONE
1512	2-277-453-00	s	KNOB, CONTROL
1513	2-277-456-00	s	COLLAR, STOPPER
1514	2-277-457-00	s	KNOB, STOPPER
1515	2-277-466-01	s	SPRING, COMPRESSION
1516	2-277-468-01	o	PLATE, ORNAMENTAL, CAMERA, SHOE(UC,EK)
1517	2-381-461-02	s	PIN, BLIND
1518	2-381-462-01	s	PIN
1519	2-381-468-01	s	PIN, STOPPER
1520	2-381-472-02	o	STOPPER
1521	2-832-007-00	s	BUSHING (K), INSULATING
1522	3-165-904-01	s	WASHER, SCREW STOPPER
1523	3-178-357-01	s	SCREW, K 3X8
1524	3-179-882-01	o	SPACER, MICROPHONE
1525	3-657-700-00	s	BRACKET, ACCESSORY (UC,EK)
1526	3-672-213-00	s	SHEET, ADHESIVE (UC,EK)
1527	3-679-498-01	s	STOPPER
1528	3-680-417-01	s	LUPE B, VF
1529	3-680-604-01	o	PLATE, BLIND
1530	3-680-605-00	o	CAP, SLIDE
1531	3-688-709-01	s	NUT, PLATE, SHOE
1532	3-688-754-11	o	SPRING (J)
1533	3-688-755-12	o	SHOE, ACCESSORY (J)
1534	3-703-037-00	s	INSULATOR, TO-220
1535	3-708-875-01	s	SCREEN, WIND
1536	7-621-255-25	s	SCREW, P 2X4
1537	7-621-255-52	s	SCREW, P 2X8
1538	7-621-773-95	s	SCREW, B 2.6X6
1539	7-621-775-00	s	SCREW, B 2.6X3
1540	7-624-102-04	s	STOP RING, TYPE E
1541	7-627-552-58	s	SCREW, PRECISION P 1.7X5
1542	7-627-553-28	s	SCREW, PRECISION P 2X2.5
1543	7-632-202-11	s	FILAMENT TAPE
1544	7-685-131-19	s	SCREW, BTP 2.6X4
1545	7-685-648-79	s	SCREW, B 3X12
1546	7-688-008-04	s	WASHER
1547	8-729-804-87	s	TRANSISTOR 2SB1142-T
1548	9-904-840-01	o	EYECAP
1549	9-994-797-01	o	CABLE, VF
1550	9-994-802-01	s	DIODE SLH-56VT
1551	9-994-811-01	o	SPRING, PLATE
1552	9-994-812-01	o	INSULATOR
1553	9-994-813-02	o	LABEL, SWITCH
1554	9-994-814-01	o	CASE, BOTTOM
1555	9-994-815-02	o	HOLDER T, OUTSIDE
1556	9-994-816-01	o	PLATE, NUT
1557	9-994-817-01	o	MOLT
1558	9-994-818-01	o	HOLDER B, OUTSIDE
1559	9-994-819-02	o	PIN, LOCK
1560	9-994-820-01	o	RING, SLIDE
1561	9-994-821-01	o	NUT PLATE, CASE
1562	9-994-822-03	o	GUIDE, VF SLIDE
1563	9-994-823-01	o	LABEL, SLIDE
1564	9-994-826-01	o	STOPPER, PWB
1565	9-994-827-01	o	COLLAR
1566	9-997-916-01	o	MIRROR
1567	9-997-917-01	o	SPACER
1568	9-997-918-01	o	RING, LOCK
1569	9-997-919-02	o	HOLDER A, LENS
1570	9-997-920-01	o	HOLDER B, LENS
1571	9-997-921-01	o	RING, ADJUSTMENT
1572	9-997-922-02	o	LID
1573	9-997-924-01	o	RING, RUBBER
1574	9-997-925-01	o	BALL, STEEL
1575	9-998-810-01	o	CASE, TOP
1576			VIEWFINDER, DXF-501 (J,UC)
1577			VIEWFINDER, DXF-501CE (EK)

BATTERY CASE

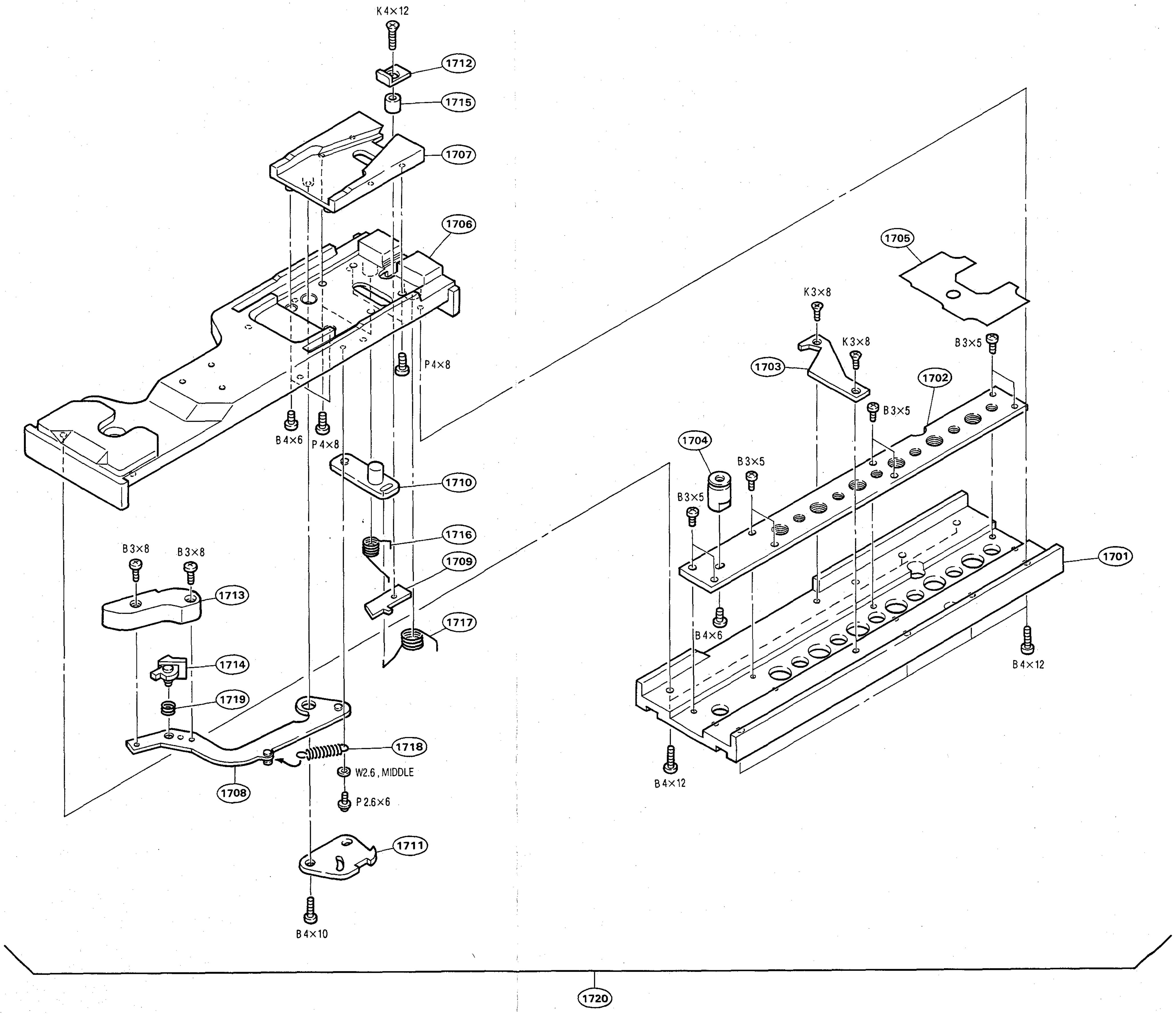
BATTERY CASE

No.	Part No.	SP	Description
1601	A-6703-651-C	s	CASE ASSY, BATTERY
1602	X-3717-701-3	o	COVER ASSY, TOP, BATTERY
1603	X-3717-742-5	o	CASE SUB ASSY, BATTERY
1604	3-669-596-01	s	WASHER (2.3), STOPPER
1605	3-703-075-00	s	CAP 2, SHAFT
1606	3-717-702-01	s	PUSH BUTTON
1607	3-717-703-03	s	HOOK
1608	3-717-707-02	o	CUSHION (2)
1609	3-717-708-01	o	RETAINER, CASE
1610	3-717-709-01	o	SHAFT, LID
1611	3-718-040-01	o	COVER (1), BATTERY CASE
1612	3-718-172-01	o	RETAINER, HOOK
1613	3-729-720-01	o	CUSHION (LEFT)
1614	3-729-721-01	o	CUSHION (RIGHT)

BATTERY CASE


1601
1605
1610
1614
1602
1613
1603
1606
1607
1612
B3×5
B3×5
1604
1611
P2.6×6
P2.6×6
1604
PSW3×8
PSW3×8
1608
1608
1609
B4×5
B4×5
B4×5
B4×5
B3×5
B3×5

TRIPOD ATTACHMENT


K4×12
1712
1715
1707
1706
P4×8
B4×6
P4×8
1710
1716
1709
1717
B3×8
B3×8
1713
1714
1719
1718
W2.6, MIDDLE
P2.6×6
1708
1711
B4×10
1705
K3×8
K3×8
1703
B3×5
1702
B3×5
1704
B3×5
B3×5
1701
B4×6
B4×12
B4×12
1720

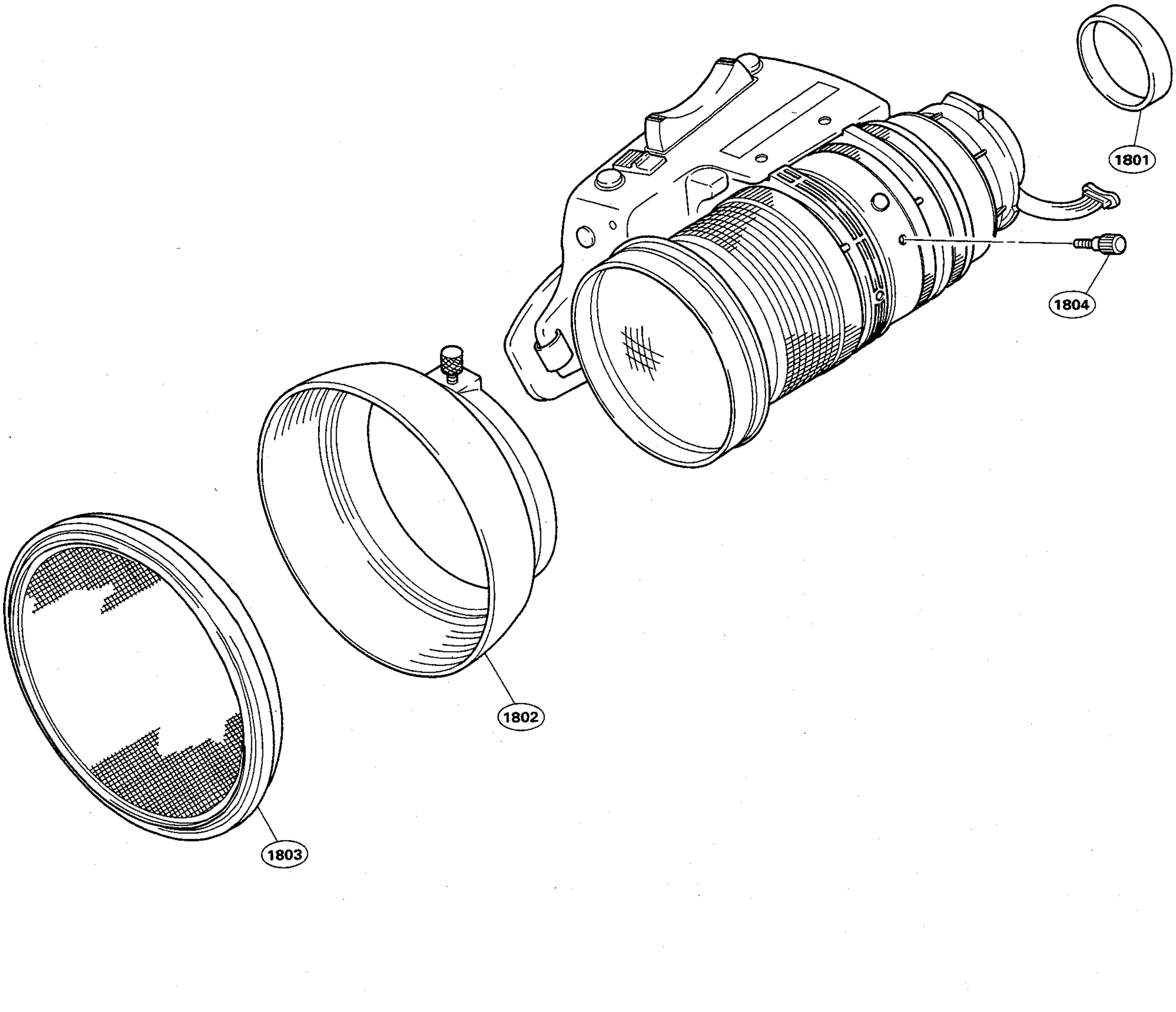
TRIPOD ATTACHMENT

No.	Part No.	SP	Description
1701	3-679-040-02	o	BASE
1702	3-679-041-02	o	BRACKET,UNC,SCREW
1703	3-679-042-02	o	INSULATOR
1704	3-679-043-01	o	SHAFT,REAR
1705	3-679-044-03	o	SLIDER
1706	3-679-045-04	o	MOUNT
1707	3-679-046-01	o	FLAME
1708	3-679-047-01	o	LEVER
1709	3-679-048-01	o	STOPPER(A)
1710	3-679-049-01	o	STOPPER(B)
1711	3-679-050-01	o	STOPPER(C)
1712	3-679-051-01	o	BRACKET,ANGLE
1713	3-679-052-01	o	KNOB
1714	3-679-053-02	o	BUTTON
1715	3-679-054-01	o	SPACER
1716	3-679-055-01	o	SPRING(A)
1717	3-679-056-01	o	SPRING(B)
1718	3-679-057-01	o	SPRING(C)
1719	3-679-058-01	o	SPRING(D)
1720	TRIPOD ATTACHMENT, VCT-U14		

LENS

No.	Part No.	SP	Description
1801	3-707-546-01	o	CAP, DUST
1802	3-708-381-01	o	HOOD
1803	3-708-382-01	o	CAP, HOOD
1804	3-708-383-01	o	LEVER, ZOOM

LENS


1801
1804
1802
1803

13-3. ELECTRICAL PARTS LIST (MAIN UNIT)

RESISTOR, CHIP METAL

Part No.	SP	Description
1-216-864-11	s	RES, CHIP METAL 0 5% 1/16W
1-216-789-11	s	RES, CHIP METAL 2.2 5% 1/16W
1-216-790-11	s	RES, CHIP METAL 2.7 5% 1/16W
1-216-791-11	s	RES, CHIP METAL 3.3 5% 1/16W
1-216-793-11	s	RES, CHIP METAL 4.7 5% 1/16W
1-216-794-11	s	RES, CHIP METAL 5.6 5% 1/16W
1-216-795-11	s	RES, CHIP METAL 6.8 5% 1/16W
1-216-796-11	s	RES, CHIP METAL 8.2 5% 1/16W
1-216-797-11	s	RES, CHIP METAL 10 5% 1/16W
1-216-798-11	s	RES, CHIP METAL 12 5% 1/16W
1-216-799-11	s	RES, CHIP METAL 15 5% 1/16W
1-216-801-11	s	RES, CHIP METAL 22 5% 1/16W
1-216-802-11	s	RES, CHIP METAL 27 5% 1/16W
1-216-803-11	s	RES, CHIP METAL 33 5% 1/16W
1-216-804-11	s	RES, CHIP METAL 39 5% 1/16W
1-216-805-11	s	RES, CHIP METAL 47 5% 1/16W
1-216-806-11	s	RES, CHIP METAL 56 5% 1/16W
1-216-807-11	s	RES, CHIP METAL 68 5% 1/16W
1-218-285-11	s	RES, CHIP METAL 75 5% 1/16W
1-216-808-11	s	RES, CHIP METAL 82 5% 1/16W
1-218-286-11	s	RES, CHIP METAL 91 5% 1/16W
1-216-809-11	s	RES, CHIP METAL 100 5% 1/16W
1-216-810-11	s	RES, CHIP METAL 120 5% 1/16W
1-216-811-11	s	RES, CHIP METAL 150 5% 1/16W
1-216-812-11	s	RES, CHIP METAL 180 5% 1/16W
1-216-813-11	s	RES, CHIP METAL 220 5% 1/16W
1-216-814-11	s	RES, CHIP METAL 270 5% 1/16W
1-218-288-11	s	RES, CHIP METAL 300 5% 1/16W
1-216-815-11	s	RES, CHIP METAL 330 5% 1/16W
1-218-269-11	s	RES, CHIP METAL 360 5% 1/16W
1-216-816-11	s	RES, CHIP METAL 390 5% 1/16W
1-218-482-11	s	RES, CHIP METAL 430 5% 1/16W
1-216-817-11	s	RES, CHIP METAL 470 5% 1/16W
1-218-289-11	s	RES, CHIP METAL 510 5% 1/16W
1-216-818-11	s	RES, CHIP METAL 560 5% 1/16W
1-220-373-11	s	RES, CHIP METAL 620 5% 1/16W
1-216-819-11	s	RES, CHIP METAL 680 5% 1/16W
1-218-484-11	s	RES, CHIP METAL 750 5% 1/16W
1-216-820-11	s	RES, CHIP METAL 820 5% 1/16W
1-218-457-11	s	RES, CHIP METAL 910 5% 1/16W
1-216-821-11	s	RES, CHIP METAL 1K 5% 1/16W
1-218-270-11	s	RES, CHIP METAL 1.1K 5% 1/16W
1-216-822-11	s	RES, CHIP METAL 1.2K 5% 1/16W
1-216-823-11	s	RES, CHIP METAL 1.5K 5% 1/16W
1-216-824-11	s	RES, CHIP METAL 1.8K 5% 1/16W
1-218-271-11	s	RES, CHIP METAL 2K 5% 1/16W
1-216-825-11	s	RES, CHIP METAL 2.2K 5% 1/16W
1-216-826-11	s	RES, CHIP METAL 2.7K 5% 1/16W
1-216-865-11	s	RES, CHIP METAL 3K 5% 1/16W
1-216-827-11	s	RES, CHIP METAL 3.3K 5% 1/16W
1-216-828-11	s	RES, CHIP METAL 3.9K 5% 1/16W
1-216-829-11	s	RES, CHIP METAL 4.7K 5% 1/16W
1-218-272-11	s	RES, CHIP METAL 5.1K 5% 1/16W
1-216-830-11	s	RES, CHIP METAL 5.6K 5% 1/16W
1-218-290-11	s	RES, CHIP METAL 6.2K 5% 1/16W

RESISTOR, CHIP METAL

Part No.	SP	Description
1-216-831-11	s	RES, CHIP METAL 6.8K 5% 1/16W
1-218-344-11	s	RES, CHIP METAL 7.5K 5% 1/16W
1-216-832-11	s	RES, CHIP METAL 8.2K 5% 1/16W
1-218-345-11	s	RES, CHIP METAL 9.1K 5% 1/16W
1-216-833-11	s	RES, CHIP METAL 10K 5% 1/16W
1-218-330-11	s	RES, CHIP METAL 11K 5% 1/16W
1-216-834-11	s	RES, CHIP METAL 12K 5% 1/16W
1-216-994-11	s	RES, CHIP METAL 13K 5% 1/16W
1-216-835-11	s	RES, CHIP METAL 15K 5% 1/16W
1-218-291-11	s	RES, CHIP METAL 16K 5% 1/16W
1-216-836-11	s	RES, CHIP METAL 18K 5% 1/16W
1-218-292-11	s	RES, CHIP METAL 20K 5% 1/16W
1-216-837-11	s	RES, CHIP METAL 22K 5% 1/16W
1-218-293-11	s	RES, CHIP METAL 24K 5% 1/16W
1-216-838-11	s	RES, CHIP METAL 27K 5% 1/16W
1-218-294-11	s	RES, CHIP METAL 30K 5% 1/16W
1-216-839-11	s	RES, CHIP METAL 33K 5% 1/16W
1-216-840-11	s	RES, CHIP METAL 39K 5% 1/16W
1-218-295-11	s	RES, CHIP METAL 43K 5% 1/16W
1-216-841-11	s	RES, CHIP METAL 47K 5% 1/16W
1-218-331-11	s	RES, CHIP METAL 51K 5% 1/16W
1-216-842-11	s	RES, CHIP METAL 56K 5% 1/16W
1-216-843-11	s	RES, CHIP METAL 68K 5% 1/16W
1-218-296-11	s	RES, CHIP METAL 75K 5% 1/16W
1-216-844-11	s	RES, CHIP METAL 82K 5% 1/16W
1-218-347-11	s	RES, CHIP METAL 91K 5% 1/16W
1-216-845-11	s	RES, CHIP METAL 100K 5% 1/16W
1-218-348-11	s	RES, CHIP METAL 110K 5% 1/16W
1-216-846-11	s	RES, CHIP METAL 120K 5% 1/16W
1-218-332-11	s	RES, CHIP METAL 130K 5% 1/16W
1-216-847-11	s	RES, CHIP METAL 150K 5% 1/16W
1-216-848-11	s	RES, CHIP METAL 180K 5% 1/16W
1-216-849-11	s	RES, CHIP METAL 220K 5% 1/16W
1-218-349-11	s	RES, CHIP METAL 240K 5% 1/16W
1-216-850-11	s	RES, CHIP METAL 270K 5% 1/16W
1-216-851-11	s	RES, CHIP METAL 330K 5% 1/16W
1-216-852-11	s	RES, CHIP METAL 390K 5% 1/16W
1-218-448-11	s	RES, CHIP METAL 430K 5% 1/16W
1-216-853-11	s	RES, CHIP METAL 470K 5% 1/16W
1-216-854-11	s	RES, CHIP METAL 560K 5% 1/16W
1-216-855-11	s	RES, CHIP METAL 680K 5% 1/16W
1-216-856-11	s	RES, CHIP METAL 820K 5% 1/16W
1-216-857-11	s	RES, CHIP METAL 1M 5% 1/16W
1-216-858-11	s	RES, CHIP METAL 1.2M 5% 1/16W
1-216-859-11	s	RES, CHIP METAL 1.5M 5% 1/16W
1-216-860-11	s	RES, CHIP METAL 1.8M 5% 1/16W
1-216-861-11	s	RES, CHIP METAL 2.2M 5% 1/16W
1-216-862-11	s	RES, CHIP METAL 2.7M 5% 1/16W
1-216-863-11	s	RES, CHIP METAL 3.3M 5% 1/16W

AT-85 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8275-531-A	o	MOUNTED CIRCUIT BOARD, AT-85
2pcs	7-627-554-27	s	SCREW, PRECITION +P 2X6 TYPE1
C1	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C4	1-124-778-00	s	ELECT 22uF 20% 6.3V
C5	1-124-778-00	s	ELECT 22uF 20% 6.3V
C6	1-124-778-00	s	ELECT 22uF 20% 6.3V
C7	1-164-156-11	s	CERAMIC 0.1uF 25V
C8	1-124-779-00	s	ELECT 10uF 20% 16V
C9	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C10	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C11	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C12	1-164-156-11	s	CERAMIC 0.1uF 25V
C13	1-126-204-11	s	ELECT 47uF 20% 16V
C14	1-124-778-00	s	ELECT 22uF 20% 6.3V
C16	1-126-204-11	s	ELECT 47uF 20% 16V
C18	1-126-206-11	s	ELECT 100uF 20% 6.3V
C19	1-162-957-11	s	CERAMIC 220PF 5% 50V
C20	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C22	1-124-778-00	s	ELECT 22uF 20% 6.3V
C30	1-124-778-00	s	ELECT 22uF 20% 6.3V
C31	1-164-156-11	s	CERAMIC 0.1uF 25V
C32	1-164-156-11	s	CERAMIC 0.1uF 25V
C33	1-164-156-11	s	CERAMIC 0.1uF 25V
C34	1-164-156-11	s	CERAMIC 0.1uF 25V
C43	1-135-161-21	s	TANTALUM, CHIP 22uF 10% 10V
C45	1-162-957-11	s	CERAMIC 220PF 5% 50V
C46	1-124-778-00	s	ELECT 22uF 20% 6.3V
C47	1-164-156-11	s	CERAMIC 0.1uF 25V
C48	1-124-779-00	s	ELECT 10uF 20% 16V
C49	1-126-602-11	s	ELECT 3.3uF 20% 50V
C51	1-124-778-00	s	ELECT 22uF 20% 6.3V
C52	1-124-778-00	s	ELECT 22uF 20% 6.3V
C53	1-126-204-11	s	ELECT 47uF 20% 16V
C54	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C55	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C56	1-124-778-00	s	ELECT 22uF 20% 6.3V
C57	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C58	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C59	1-164-361-11	s	CERAMIC 0.047uF 16V
C60	1-124-778-00	s	ELECT 22uF 20% 6.3V
C62	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C63	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C64	1-164-156-11	s	CERAMIC 0.1uF 25V
C65	1-164-156-11	s	CERAMIC 0.1uF 25V
C66	1-164-361-11	s	CERAMIC 0.047uF 16V
C67	1-164-361-11	s	CERAMIC 0.047uF 16V
C68	1-126-402-11	s	ELECT, CHIP 2.2uF 20% 50V
C69	1-126-402-11	s	ELECT, CHIP 2.2uF 20% 50V
C70	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C72	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C73	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C74	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C75	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C76	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C77	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C78	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C79	1-135-165-11	s	TANTALUM, CHIP 33uF 10% 16V
C80	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V

(AT-85 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C81	1-135-161-21	s	TANTALUM, CHIP 22uF 10% 10V
C82	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C83	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C84	1-128-394-11	s	ELECT 220uF 20% 10V
C85	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C86	1-124-778-00	s	ELECT 22uF 20% 6.3V
C87	1-164-156-11	s	CERAMIC 0.1uF 25V
C88	1-164-156-11	s	CERAMIC 0.1uF 25V
CN1	1-691-856-11	s	CONNECTOR, BOARD TO BOARD 60P
D1	8-719-800-76	s	DIODE 1SS226
D3	8-719-800-76	s	DIODE 1SS226
D4	8-719-800-76	s	DIODE 1SS226
D5	8-719-974-76	s	DIODE HSM107S
D6	8-719-106-43	s	DIODE RD9.1M-B1
D7	8-719-801-78	s	DIODE 1SS184
D8	8-719-801-78	s	DIODE 1SS184
IC1	8-759-300-71	s	IC MC14053BF
IC2	8-759-209-97	s	IC TC4S81F
IC3	8-759-209-97	s	IC TC4S81F
IC4	8-759-209-97	s	IC TC4S81F
IC5	8-759-906-53	s	IC TL062CPS
IC6	8-759-700-07	s	IC NJM2903M
IC8	8-759-209-97	s	IC TC4S81F
IC9	8-759-052-65	s	IC HD6413308F6
IC10	8-759-086-40	s	IC UPD6451AGT-101-E1
IC11	8-759-052-64	s	IC M6M80011AFP
IC12	8-759-906-53	s	IC TL062CPS
IC13	8-759-635-27	s	IC M62352GP
IC14	8-759-918-65	s	IC TL7700CPS
IC15	8-759-296-25	o	IC MBM27C512-UVW100V1.12
IC16	8-759-700-07	s	IC NJM2903M
IC17	8-759-635-27	s	IC M62352GP
IC19	8-759-209-15	s	IC TC4SU69F
IC20	8-759-209-15	s	IC TC4SU69F
IC21	8-759-209-15	s	IC TC4SU69F
IC22	8-759-209-90	s	IC TC4S71F
IC23	8-759-209-90	s	IC TC4S71F
IC25	8-759-948-48	s	IC RH5RA50A
IC26	8-759-209-97	s	IC TC4S81F
IC27	8-759-071-41	s	IC CXD8154BM
IC28	8-759-242-64	s	IC TC4W53F
IC29	8-759-242-64	s	IC TC4W53F
IC30	8-759-242-64	s	IC TC4W53F
IC31	8-759-009-06	s	IC MC14052BF
IC32	8-759-926-15	s	IC SN74HC151ANS
IC33	8-759-245-41	s	IC TC4S584F
IC34	8-759-049-98	s	IC SN74HC74APW
IC36	8-759-049-60	s	IC SN74HC08APW
IC37	8-759-049-96	s	IC SN74HC32APW
IC38	8-759-209-57	s	IC TC4S69F
IC39	8-759-209-97	s	IC TC4S81F
L1	1-410-387-11	s	INDUCTOR CHIP 33UH
L2	1-410-387-11	s	INDUCTOR CHIP 33UH
L3	1-410-387-11	s	INDUCTOR CHIP 33UH
L4	1-410-387-11	s	INDUCTOR CHIP 33UH
L5	1-410-387-11	s	INDUCTOR CHIP 33UH
L6	1-410-389-31	s	INDUCTOR CHIP 47uH

Please see page 13-40 for the part numbers of resistor that is not the parts list.

(AT-85 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q1	8-729-905-23	s	TRANSISTOR 2SA1576R
Q2	8-729-905-23	s	TRANSISTOR 2SA1576R
Q3	8-729-905-23	s	TRANSISTOR 2SA1576R
Q5	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q6	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q7	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q8	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q9	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q10	8-729-905-23	s	TRANSISTOR 2SA1576R
Q11	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q12	8-729-142-90	s	TRANSISTOR 2SK853-K5
Q13	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q14	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q15	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q16	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q17	8-729-117-72	s	TRANSISTOR 2SC4178
Q18	8-729-905-23	s	TRANSISTOR 2SA1576R
Q20	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q21	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q22	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q23	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q24	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q25	8-729-905-23	s	TRANSISTOR 2SA1576R
Q26	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q27	8-729-905-23	s	TRANSISTOR 2SA1576R
Q29	8-729-117-72	s	TRANSISTOR 2SC4178
Q30	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
R7	1-218-724-11	s	METAL 22K 0.50% 1/16W
R30	1-218-724-11	s	METAL 22K 0.50% 1/16W
R33	1-218-724-11	s	METAL 22K 0.50% 1/16W
R53	1-218-714-11	s	METAL 8.2K 0.50% 1/16W
R61	1-218-724-11	s	METAL 22K 0.50% 1/16W
R62	1-218-716-11	s	METAL 10K 0.50% 1/16W
R71	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R74	1-218-724-11	s	METAL 22K 0.50% 1/16W
R81	1-218-716-11	s	METAL 10K 0.50% 1/16W
R82	1-218-716-11	s	METAL 10K 0.50% 1/16W
R83	1-218-716-11	s	METAL 10K 0.50% 1/16W
R84	1-218-716-11	s	METAL 10K 0.50% 1/16W
R85	1-218-716-11	s	METAL 10K 0.50% 1/16W
R88	1-218-710-11	s	METAL, CHIP 5.6K 0.50% 1/16W
R89	1-218-714-11	s	METAL 8.2K 0.50% 1/16W
R90	1-218-714-11	s	METAL 8.2K 0.50% 1/16W
R91	1-218-714-11	s	METAL 8.2K 0.50% 1/16W
R92	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R93	1-218-724-11	s	METAL 22K 0.50% 1/16W
R146	1-218-720-11	s	METAL 15K 0.50% 1/16W
R147	1-218-727-11	s	METAL 30K 0.50% 1/16W
R150	1-218-720-11	s	METAL 15K 0.50% 1/16W
S1	1-571-275-31	s	SWITCH, SLIDE
S2	1-571-275-31	s	SWITCH, SLIDE
S3	1-571-275-31	s	SWITCH, SLIDE
S4	1-571-275-31	s	SWITCH, SLIDE
S5	1-571-275-31	s	SWITCH, SLIDE
S6	1-571-275-31	s	SWITCH, SLIDE
X1	1-579-728-11	s	VIBRATOR, CRYSTAL 12.0MHz

AU-185/185P BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8275-596-A	o	MOUNTED CIRCUIT BOARD, AU-185 [for J, UC]
1pc	A-8275-695-A	o	MOUNTED CIRCUIT BOARD, AU-185P [for EK]
C1	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C2	1-135-091-91	s	CHIP, TANTALUM 1uF 20% 16V
C5	1-128-029-11	s	ELECT, CHIP 4.7uF 0 16V
C7	1-128-020-11	s	ELECT, CHIP 10uF 0 6.3V
C8	1-128-020-11	s	ELECT, CHIP 10uF 0 6.3V
C12	1-124-779-00	s	ELECT 10uF 20% 16V
C20	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C21	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V
C22	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V
C30	1-163-139-00	s	CERAMIC, CHIP 820PF 5% 50V
C31	1-163-139-00	s	CERAMIC, CHIP 820PF 5% 50V
C32	1-163-263-11	s	CERAMIC, CHIP 330PF 5% 50V
C34	1-136-439-11	s	FILM 330PF 5% 630
C58	1-128-020-11	s	ELECT, CHIP 10uF 0 6.3V
C59	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C60	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C107	1-135-091-91	s	CHIP, TANTALUM 1uF 20% 16V
C111	1-163-227-11	s	CERAMIC, CHIP 10PF 5% 50V
C112	1-164-182-11	s	CERAMIC, CHIP 0.0033uF 10% 100V
C113	1-163-011-11	s	CERAMIC, CHIP 0.0015uF 10% 50V
C114	1-163-143-00	s	CERAMIC, CHIP 0.0012uF 5% 50V [for EK]
C115	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V [for J, UC]
C130	1-164-489-11	s	CERAMIC CHIP 0.22uF 10% 16V
C134	1-128-029-11	s	ELECT, CHIP 4.7uF 0 16V
C135	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V
C136	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C138	1-136-439-11	s	FILM 330PF 5% 630
C140	1-164-489-11	s	CERAMIC CHIP 0.22uF 10% 16V
C142	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V
C143	1-162-587-11	s	CERAMIC 0.039uF 10% 25V
C207	1-135-091-91	s	CHIP, TANTALUM 1uF 20% 16V
C211	1-163-227-11	s	CERAMIC, CHIP 10PF 5% 50V
C212	1-164-182-11	s	CERAMIC, CHIP 0.0033uF 10% 100V
C213	1-163-011-11	s	CERAMIC, CHIP 0.0015uF 10% 50V
C214	1-163-143-00	s	CERAMIC, CHIP 0.0012uF 5% 50V [for EK]
C215	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V [for J, UC]
C230	1-164-489-11	s	CERAMIC CHIP 0.22uF 10% 16V
C234	1-128-029-11	s	ELECT, CHIP 4.7uF 0 16V
C235	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V
C236	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C238	1-136-439-11	s	FILM 330PF 5% 630
C240	1-164-489-11	s	CERAMIC CHIP 0.22uF 10% 16V
C242	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V
C243	1-162-587-11	s	CERAMIC 0.039uF 10% 25V
C301	1-163-263-11	s	CERAMIC, CHIP 330PF 5% 50V
C302	1-163-121-00	s	CERAMIC, CHIP 150PF 5% 50V
C304	1-128-017-21	s	ELECT, CHIP 47uF 0 4V
C305	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V
C306	1-128-020-11	s	ELECT, CHIP 10uF 0 6.3V
C307	1-163-125-00	s	CERAMIC, CHIP 220PF 5% 50V
C308	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V

Please see page 13-40 for the part numbers of resistor that is not the parts list.

(AU-185/185P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C309	1-128-020-11	s	ELECT, CHIP 10uF 0 6.3V
C401	1-163-263-11	s	CERAMIC, CHIP 330PF 5% 50V
C402	1-163-121-00	s	CERAMIC, CHIP 150PF 5% 50V
C404	1-128-017-21	s	ELECT, CHIP 47uF 0 4V
C405	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V
C406	1-128-020-11	s	ELECT, CHIP 10uF 0 6.3V
C407	1-163-125-00	s	CERAMIC, CHIP 220PF 5% 50V
C408	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C409	1-128-020-11	s	ELECT, CHIP 10uF 0 6.3V
C909	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C910	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C913	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C914	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C915	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C916	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C917	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C918	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C919	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C920	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C921	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C922	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
CN1	1-568-801-11	s	CONNECTOR, FPC (ZIF) 24P
CN2	1-566-526-11	s	CONNECTOR, 10P
CV131	1-141-393-11	s	CAP, TRIMMER 100PF
CV231	1-141-393-11	s	CAP, TRIMMER 100PF
D1	8-719-123-82	s	DIODE 1SS303
D301	8-719-820-41	s	DIODE 1SS302
D401	8-719-820-41	s	DIODE 1SS302
IC110	8-759-710-77	s	IC NJM4560MD
IC111	8-759-710-77	s	IC NJM4560MD
IC112	8-759-710-77	s	IC NJM4560MD
IC113	8-759-710-77	s	IC NJM4560MD
IC301	8-759-144-75	s	IC UPC4572G2-E2
IC302	8-759-066-61	s	IC TC4053BFS
IC303	8-759-710-77	s	IC NJM4560MD
IC304	8-759-075-68	s	IC TC4066BFS
L1	1-408-429-00	s	INDUCTOR 470uH
L2	1-408-429-00	s	INDUCTOR 470uH
LV111	1-410-854-21	s	COIL, VAR
LV131	1-410-853-21	s	COIL, VAR
LV211	1-410-854-21	s	COIL, VAR
LV231	1-410-853-21	s	COIL, VAR
Q1	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q2	8-729-905-18	s	TRANSISTOR DTC144EU
Q3	8-729-105-08	s	TRANSISTOR 2SA1330-06
Q4	8-729-105-08	s	TRANSISTOR 2SA1330-06
Q6	8-729-907-00	s	TRANSISTOR DTC114EU
Q7	8-729-905-18	s	TRANSISTOR DTC144EU
Q14	8-729-231-74	s	TRANSISTOR 2SC4116GL
Q15	8-729-231-74	s	TRANSISTOR 2SC4116GL
Q16	8-729-905-12	s	TRANSISTOR DTA144EU
Q17	8-729-905-18	s	TRANSISTOR DTC144EU
Q54	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q55	8-729-905-12	s	TRANSISTOR DTA144EU
Q56	8-729-117-32	s	TRANSISTOR 2SC4177
Q59	8-729-920-99	s	TRANSISTOR DTA114EU

(AU-185/185P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q60	8-729-905-18	s	TRANSISTOR DTC144EU
Q61	8-729-905-12	s	TRANSISTOR DTA144EU
Q131	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q132	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q231	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q232	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q302	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q305	8-729-105-37	s	TRANSISTOR 2SC3360
Q306	8-729-105-37	s	TRANSISTOR 2SC3360
Q307	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q402	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q405	8-729-105-37	s	TRANSISTOR 2SC3360
Q406	8-729-105-37	s	TRANSISTOR 2SC3360
Q407	8-729-209-07	s	TRANSISTOR 2SC4213-B
R5	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R6	1-216-089-91	s	METAL 47K 5% 1/10W
R7	1-216-089-91	s	METAL 47K 5% 1/10W
R8	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R9	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R10	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R11	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R12	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R26	1-216-081-00	s	METAL, CHIP 22K 5% 1/10W
R30	1-216-083-00	s	METAL, CHIP 27K 5% 1/10W
R31	1-216-083-00	s	METAL, CHIP 27K 5% 1/10W
R60	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R63	1-216-295-00	s	METAL, CHIP 0 5% 1/10W
R66	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R68	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R69	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R70	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R71	1-216-295-00	s	METAL, CHIP 0 5% 1/10W
R72	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R73	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R77	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R78	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R79	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R111	1-216-662-11	s	METAL, CHIP 3K 0.5% 1/10W [for J, UC]
R111	1-208-814-11	s	CHIP, METAL 22K 0.50% 1/10W [for EK]
R112	1-216-676-11	s	METAL, CHIP 11K 0.5% 1/10W [for J, UC]
R112	1-216-697-11	s	METAL, CHIP 82K 0.5% 1/10W [for EK]
R113	1-216-656-11	s	METAL, CHIP 1.6K 0.5% 1/10W [for J, UC]
R113	1-208-784-11	s	CHIP, METAL 1.2K 0.50% 1/10W [for EK]
R114	1-218-753-11	s	METAL, CHIP 110K 0.50% 1/10W
R115	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R116	1-218-760-11	s	METAL, CHIP 220K 0.50% 1/10W
R117	1-216-115-00	s	METAL, CHIP 560K 5% 1/10W
R118	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W [for J, UC]
R118	1-216-033-00	s	METAL, CHIP 220 5% 1/10W [for EK]
R119	1-216-685-11	s	METAL, CHIP 27K 0.5% 1/10W [for EK]
R120	1-216-061-00	s	METAL, CHIP 3.3K 5% 1/10W [for J, UC]

Please see page 13-40 for the part numbers of resistor that is not the parts list.

(AU-185/185P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R132	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R138	1-216-033-00	s	METAL, CHIP 220 5% 1/10W
R139	1-216-089-91	s	METAL 47K 5% 1/10W
R141	1-216-077-00	s	METAL, CHIP 15K 5% 1/10W
R142	1-216-656-11	s	METAL, CHIP 1.6K 0.5% 1/10W [for J, UC]
R142	1-216-661-11	s	METAL, CHIP 2.7K 0.5% 1/10W [for EK]
R145	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R146	1-218-760-11	s	METAL, CHIP 220K 0.50% 1/10W
R147	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R148	1-208-806-11	s	CHIP, METAL 10K 0.50% 1/10W
R149	1-208-806-11	s	CHIP, METAL 10K 0.50% 1/10W
R150	1-208-806-11	s	CHIP, METAL 10K 0.50% 1/10W
R151	1-208-806-11	s	CHIP, METAL 10K 0.50% 1/10W
R152	1-208-806-11	s	CHIP, METAL 10K 0.50% 1/10W
R153	1-208-806-11	s	CHIP, METAL 10K 0.50% 1/10W
R154	1-208-806-11	s	CHIP, METAL 10K 0.50% 1/10W
R155	1-208-806-11	s	CHIP, METAL 10K 0.50% 1/10W
R211	1-216-662-11	s	METAL, CHIP 3K 0.5% 1/10W [for J, UC]
R211	1-208-814-11	s	CHIP, METAL 22K 0.50% 1/10W [for EK]
R212	1-216-676-11	s	METAL, CHIP 11K 0.5% 1/10W [for J, UC]
R212	1-216-697-11	s	METAL, CHIP 82K 0.5% 1/10W [for EK]
R213	1-216-656-11	s	METAL, CHIP 1.6K 0.5% 1/10W [for J, UC]
R213	1-208-784-11	s	CHIP, METAL 1.2K 0.50% 1/10W [for EK]
R214	1-218-753-11	s	METAL, CHIP 110K 0.50% 1/10W
R215	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R216	1-218-760-11	s	METAL, CHIP 220K 0.50% 1/10W
R217	1-216-115-00	s	METAL, CHIP 560K 5% 1/10W
R218	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W [for J, UC]
R218	1-216-033-00	s	METAL, CHIP 220 5% 1/10W [for EK]
R219	1-216-685-11	s	METAL, CHIP 27K 0.5% 1/10W [for EK]
R220	1-216-061-00	s	METAL, CHIP 3.3K 5% 1/10W [for J, UC]
R232	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R238	1-216-033-00	s	METAL, CHIP 220 5% 1/10W
R239	1-216-089-91	s	METAL 47K 5% 1/10W
R241	1-216-077-00	s	METAL, CHIP 15K 5% 1/10W
R242	1-216-656-11	s	METAL, CHIP 1.6K 0.5% 1/10W [for J, UC]
R242	1-216-661-11	s	METAL, CHIP 2.7K 0.5% 1/10W [for EK]
R245	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R246	1-218-760-11	s	METAL, CHIP 220K 0.50% 1/10W
R247	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R248	1-208-806-11	s	CHIP, METAL 10K 0.50% 1/10W
R249	1-208-806-11	s	CHIP, METAL 10K 0.50% 1/10W
R250	1-208-806-11	s	CHIP, METAL 10K 0.50% 1/10W
R251	1-208-806-11	s	CHIP, METAL 10K 0.50% 1/10W
R252	1-208-806-11	s	CHIP, METAL 10K 0.50% 1/10W
R253	1-208-806-11	s	CHIP, METAL 10K 0.50% 1/10W
R254	1-208-806-11	s	CHIP, METAL 10K 0.50% 1/10W
R255	1-208-806-11	s	CHIP, METAL 10K 0.50% 1/10W

(AU-185/185P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R301	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R302	1-216-067-00	s	METAL, CHIP 5.6K 5% 1/10W
R303	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R304	1-216-109-00	s	METAL, CHIP 330K 5% 1/10W
R305	1-216-061-00	s	METAL, CHIP 3.3K 5% 1/10W [for J, UC]
R305	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W [for EK]
R306	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R307	1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
R308	1-208-774-11	s	CHIP, METAL 470 0.50% 1/10W
R309	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R310	1-216-685-11	s	METAL, CHIP 27K 0.5% 1/10W
R311	1-216-656-11	s	METAL, CHIP 1.6K 0.5% 1/10W
R312	1-208-810-11	s	CHIP, METAL 15K 0.50% 1/10W
R313	1-216-089-91	s	METAL 47K 5% 1/10W
R319	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R320	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R321	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R322	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W [for J, UC]
R322	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W [for EK]
R401	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R402	1-216-067-00	s	METAL, CHIP 5.6K 5% 1/10W
R403	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R404	1-216-109-00	s	METAL, CHIP 330K 5% 1/10W
R405	1-216-061-00	s	METAL, CHIP 3.3K 5% 1/10W [for J, UC]
R405	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W [for EK]
R406	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R407	1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
R408	1-208-774-11	s	CHIP, METAL 470 0.50% 1/10W
R409	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R410	1-216-685-11	s	METAL, CHIP 27K 0.5% 1/10W
R411	1-216-656-11	s	METAL, CHIP 1.6K 0.5% 1/10W
R412	1-208-810-11	s	CHIP, METAL 15K 0.50% 1/10W
R413	1-216-089-91	s	METAL 47K 5% 1/10W
R419	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R420	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R421	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R422	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W [for J, UC]
R422	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W [for EK]
RV111	1-238-090-11	s	RES, ADJ, 10K
RV112	1-238-090-11	s	RES, ADJ, 10K
RV113	1-238-090-11	s	RES, ADJ, 10K
RV211	1-238-090-11	s	RES, ADJ, 10K
RV212	1-238-090-11	s	RES, ADJ, 10K
RV302	1-238-089-11	s	RES, ADJ, 4.7K
RV303	1-238-090-11	s	RES, ADJ, 10K
RV402	1-238-089-11	s	RES, ADJ, 4.7K
RV403	1-238-090-11	s	RES, ADJ, 10K
T1	1-459-865-11	s	COIL, VAR 3.4mH

Please see page 13-40 for the part numbers of resistor that is not the parts list.

CN-935 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-650-138-12	o	PRINTE CIECUIT BOARD, CN-935
1pc	3-679-064-01	o	BRACKET, CONNECTOR
CN1	1-690-107-11	o	CONNECTOR, 12P FEMALE
CN2	1-506-486-11	s	CONNECTOR, 7P, MALE
CN3	1-506-484-11	s	CONNECTOR, 5P, MALE
CN4	1-562-261-41	s	CONNECTOR, COAXIAL
CN5	1-562-261-41	s	CONNECTOR, COAXIAL
CN6	1-562-261-41	s	CONNECTOR, COAXIAL
CN7	1-562-261-41	s	CONNECTOR, COAXIAL
CN8	1-569-422-11	s	CONNECTOR, 20P FEMALE

CN-936 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8275-587-A	o	MOUNTED CIRCUIT BOARD, CN-936 [for UC]
C1	1-162-600-11	s	CERAMIC 0.0047uF 30% 16V
C2	1-162-600-11	s	CERAMIC 0.0047uF 30% 16V
C4	1-164-159-21	s	CERAMIC 0.1uF 50V
C5	1-164-159-21	s	CERAMIC 0.1uF 50V
CN1	1-506-487-11	s	CONNECTOR, 8P, MALE
CN2	1-507-980-41	s	JACK
CN3	1-507-980-41	s	JACK
R1	1-215-377-00	s	METAL 15 1% 1/6W
R2	1-215-377-00	s	METAL 15 1% 1/6W

CN-992 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-543-751-11	o	CORE (TROIDAL)
1pc	1-565-977-11	s	CONTACT, FEMALE AWG 28-32
1pc	1-569-618-11	o	HOUSING, CONNECTOR 3P
1pc	1-651-577-11	o	PRINTED CIRCUIT BOARD, CN-992
C1	1-161-039-00	s	CERAMIC 0.001uF 10% 50V
C2	1-161-039-00	s	CERAMIC 0.001uF 10% 50V
CN1	1-565-282-11	o	CONNECTOR, XLR 3P, FEMALE
W1	1-953-150-13	o	HARNESS, SUB (MIC-1)

DC-62 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8275-588-A	o	MOUNTED CIRCUIT BOARD, DC-62
1pc	3-679-073-02	o	CASE, SHILD(U)
1pc	3-679-074-02	o	CASE, SHILD(B)
1pc	3-679-071-02	o	INSULATOR, DD CON
C11	1-111-056-11	s	ELECT 82uF 20% 25V
C12	1-163-125-00	s	CERAMIC, CHIP 220PF 5% 50V
C13	1-124-577-11	s	ELECT 82uF 20% 10V
C14	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V
C15	1-127-531-11	s	ELECT 20 16V
C16	1-163-125-00	s	CERAMIC, CHIP 220PF 5% 50V
C17	1-124-577-11	s	ELECT 82uF 20% 10V
C18	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V
C19	1-127-558-11	s	ELECT (SOLID) 10uF 20% 10V
C20	1-127-531-11	s	ELECT 20 16V
C21	1-111-008-11	s	ELECT 180uF 20% 10V
C31	1-111-059-11	s	ELECT 220uF 20% 25V
C32	1-163-125-00	s	CERAMIC, CHIP 220PF 5% 50V
C33	1-111-033-11	s	ELECT 180uF 20% 16V
C34	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V
C35	1-163-125-00	s	CERAMIC, CHIP 220PF 5% 50V
C36	1-127-512-00	s	ELECT (SOLID) 10uF 20% 16V
C37	1-124-577-11	s	ELECT 82uF 20% 10V
C38	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V
C39	1-127-558-11	s	ELECT (SOLID) 10uF 20% 10V
C40	1-111-008-11	s	ELECT 180uF 20% 10V
C51	1-111-059-11	s	ELECT 220uF 20% 25V
C52	1-163-125-00	s	CERAMIC, CHIP 220PF 5% 50V
C53	1-127-531-11	s	ELECT 20 16V
C54	1-127-496-00	s	ELECT, SOLID 6.8uF 20% 16V
C55	1-127-485-00	s	ELECT (SOLID) 33uF 20% 6.3V
C56	1-127-558-11	s	ELECT (SOLID) 10uF 20% 10V
C57	1-127-513-00	s	ELECT (SOLID) 15uF 20% 25V
C58	1-127-512-00	s	ELECT (SOLID) 10uF 20% 16V
C60	1-111-110-11	s	ELECT 39uF 20% 50V
C61	1-111-110-11	s	ELECT 39uF 20% 50V
C62	1-163-809-11	s	CERAMIC, CHIP 0.047uF 10% 25V
C63	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V
CN1	1-564-011-11	o	CONNECTOR, 12P, MALE
CN2	1-564-011-11	o	CONNECTOR, 12P, MALE
D11	8-719-980-78	s	DIODE ERA83-006
D12	8-719-980-78	s	DIODE ERA83-006
D31	8-719-980-78	s	DIODE ERA83-006
D32	8-719-980-78	s	DIODE ERA83-006
D51	8-719-938-75	s	DIODE SB05-05CP
D52	8-719-938-75	s	DIODE SB05-05CP
D53	8-719-938-75	s	DIODE SB05-05CP
D54	8-719-938-75	s	DIODE SB05-05CP
D55	8-719-938-75	s	DIODE SB05-05CP
L1	1-410-283-11	s	48uH (WITH CORE)
L11	1-410-283-11	s	48uH (WITH CORE)
L12	1-410-625-11	s	COIL, CHOKE 33uH
L13	1-410-627-11	s	COIL, CHOKE 100uH
L14	1-410-625-11	s	COIL, CHOKE 33uH
L15	1-410-625-11	s	COIL, CHOKE 33uH
L31	1-410-283-11	s	48uH (WITH CORE)
L32	1-410-625-11	s	COIL, CHOKE 33uH
L33	1-410-626-11	s	COIL, CHOKE 47uH
L34	1-410-625-11	s	COIL, CHOKE 33uH

(DC-62 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
L51	1-424-298-11	s	COIL, CHOKE 82uH
L52	1-424-298-11	s	COIL, CHOKE 82uH
L53	1-424-298-11	s	COIL, CHOKE 82uH
Q11	8-729-920-53	s	TRANSISTOR FMY1
Q12	8-729-927-83	s	TRANSISTOR IRFU9020
Q13	8-729-920-53	s	TRANSISTOR FMY1
Q14	8-729-927-83	s	TRANSISTOR IRFU9020
Q31	8-729-920-53	s	TRANSISTOR FMY1
Q32	8-729-927-83	s	TRANSISTOR IRFU9020
Q33	8-729-920-53	s	TRANSISTOR FMY1
Q34	8-729-927-83	s	TRANSISTOR IRFU9020
Q51	8-729-920-53	s	TRANSISTOR FMY1
Q52	8-729-927-83	s	TRANSISTOR IRFU9020
R11	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R12	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R13	1-216-001-00	s	METAL, CHIP 10 5% 1/10W
R14	1-208-814-11	s	CHIP, METAL 22K 0.50% 1/10W
R15	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R16	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R17	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R18	1-216-001-00	s	METAL, CHIP 10 5% 1/10W
R19	1-208-814-11	s	CHIP, METAL 22K 0.50% 1/10W
R21	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W
R22	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R23	1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
R24	1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
R31	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R32	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R33	1-216-001-00	s	METAL, CHIP 10 5% 1/10W
R34	1-216-690-11	s	METAL, CHIP 43K 0.5% 1/10W
R35	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R36	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R37	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R38	1-216-001-00	s	METAL, CHIP 10 5% 1/10W
R39	1-216-685-11	s	METAL, CHIP 27K 0.5% 1/10W
R40	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R41	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
R42	1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
R43	1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
R51	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R52	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R53	1-216-001-00	s	METAL, CHIP 10 5% 1/10W
R54	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R56	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R57	1-216-089-91	s	METAL 47K 5% 1/10W
R58	1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
T51	1-426-660-11	s	TRANSFORMER, DC/DC CONVERTER

DC-63 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
C101	1-135-138-11	s	TANTALUM, CHIP 10uF 20% 25V
C102	1-135-138-11	s	TANTALUM, CHIP 10uF 20% 25V
C103	1-135-085-21	s	TANTALUM, CHIP 4.7uF 10% 25V
C104	1-111-059-11	s	ELECT 220uF 20% 25V
C105	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C111	1-135-179-21	s	TANTAL 2.2uF 10% 16V
C112	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C113	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C115	1-163-125-00	s	CERAMIC, CHIP 220PF 5% 50V
C116	1-163-033-91	s	CERAMIC 0.022uF 50V
C117	1-163-133-00	s	CERAMIC, CHIP 470PF 5% 50V
C118	1-163-133-00	s	CERAMIC, CHIP 470PF 5% 50V
C119	1-163-033-91	s	CERAMIC 0.022uF 50V
C120	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C133	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C134	1-163-033-91	s	CERAMIC 0.022uF 50V
C135	1-163-133-00	s	CERAMIC, CHIP 470PF 5% 50V
C136	1-163-133-00	s	CERAMIC, CHIP 470PF 5% 50V
C137	1-163-033-91	s	CERAMIC 0.022uF 50V
C138	1-135-072-21	s	TANTALUM, CHIP 0.22uF 10% 35V
C151	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C152	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C153	1-163-033-91	s	CERAMIC 0.022uF 50V
C154	1-163-133-00	s	CERAMIC, CHIP 470PF 5% 50V
D101	8-719-911-55	s	DIODE U05G
D102	8-719-021-31	s	DIODE UZM5.1B
IC101	8-759-700-07	s	IC NJM2903M
IC102	8-759-937-36	s	IC TL1451ACNS
IC103	8-759-937-36	s	IC TL1451ACNS
IC104	8-759-937-36	s	IC TL1451ACNS
PS101 ⚠	1-532-847-21	s	LINK, IC
Q101	8-729-927-83	s	TRANSISTOR IRFU9020
Q102	8-729-901-01	s	TRANSISTOR DTC144EK
Q103	8-729-901-01	s	TRANSISTOR DTC144EK
Q104	8-729-901-01	s	TRANSISTOR DTC144EK
Q105	8-729-900-53	s	TRANSISTOR DTC114EK
Q106	8-729-901-06	s	TRANSISTOR DTA144EK
R101	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R102	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R103	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R104	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R105	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R106	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R109	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R110	1-216-077-00	s	METAL, CHIP 15K 5% 1/10W
R111	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R112	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R113	1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
R114	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R115	1-208-817-11	s	CHIP, METAL 30K 0.50% 1/10W
R116	1-216-666-11	s	METAL, CHIP 4.3K 0.5% 1/10W
R117	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R118	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R119	1-216-079-00	s	METAL, CHIP 18K 5% 1/10W
R120	1-216-093-00	s	METAL, CHIP 68K 5% 1/10W
R131	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R132	1-216-089-91	s	METAL 47K 5% 1/10W

Please see page 13-40 for the part numbers of resistor that is not the parts list.

(DC-63 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R134	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R135	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R136	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R151	1-216-079-00	s	METAL, CHIP 18K 5% 1/10W
R152	1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
R153	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R154	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R155	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R156	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R157	1-216-089-91	s	METAL 47K 5% 1/10W
RV111	1-238-089-11	s	RES, ADJ, 4.7K

DR-254 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8275-595-A	o	MOUNTED CIRCUIT BOARD, DR-254
C1	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C2	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C3	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C4	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C5	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C6	1-163-239-11	s	CERAMIC, CHIP 33PF 5% 50V
C7	1-163-239-11	s	CERAMIC, CHIP 33PF 5% 50V
C8	1-163-135-00	s	CERAMIC, CHIP 560PF 5% 50V
C9	1-163-135-00	s	CERAMIC, CHIP 560PF 5% 50V
C10	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C11	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C12	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
CN303	1-765-133-11	s	CABLE, FLAT 16P
CN320	1-569-335-11	s	CONNECTOR, 9P FEMALE
CN601	1-564-011-11	o	CONNECTOR, 12P, MALE
CN650	1-562-772-11	o	CONNECTOR, 12P, FEMALE
CN651	1-562-772-11	o	CONNECTOR, 12P, FEMALE
IC1	8-759-821-88	s	IC CXA8004M
IC2	8-759-144-75	s	IC UPC4572G2-E2
R1	1-216-089-91	s	METAL 47K 5% 1/10W
R2	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R3	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R4	1-216-067-00	s	METAL, CHIP 5.6K 5% 1/10W
R5	1-216-067-00	s	METAL, CHIP 5.6K 5% 1/10W
R6	1-216-105-00	s	METAL, CHIP 220K 5% 1/10W
R7	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R8	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R9	1-216-105-00	s	METAL, CHIP 220K 5% 1/10W
R10	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R11	1-216-041-00	s	METAL, CHIP 470 5% 1/10W

Please see page 13-40 for the part numbers of resistor that is not the parts list.

ES-7(J)/ES7(UC)/ES7(P) BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8275-583-A	o	MOUNTED CIRCUIT BOARD, ES-7 (J) [for J]
1pc	A-8275-582-A	o	MOUNTED CIRCUIT BOARD, ES-7 (UC) [for UC]
1pc	A-8275-690-A	o	MOUNTED CIRCUIT BOARD, ES-7 (P) [for EK]
2pcs	7-627-554-27	s	SCREW, PRECITION +P 2X6 TYPE1
C1	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C2	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C4	1-135-161-21	s	TANTALUM, CHIP 22uF 10% 10V
C5	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C6	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C7	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C8	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C10	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C11	1-135-179-21	s	TANTAL 2.2uF 10% 16V
C13	1-135-161-21	s	TANTALUM, CHIP 22uF 10% 10V
C14	1-128-393-11	s	ELECT 100uF 20% 10V
C15	1-164-156-11	s	CERAMIC 0.1uF 25V
C17	1-135-161-21	s	TANTALUM, CHIP 22uF 10% 10V
C18	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C19	1-162-925-11	s	CERAMIC, CHIP 68PF 5% 50V
C20	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C21	1-124-779-00	s	ELECT 10uF 20% 16V
C22	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C23	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C24	1-164-156-11	s	CERAMIC 0.1uF 25V
C25	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C26	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C27	1-164-156-11	s	CERAMIC 0.1uF 25V
C28	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C29	1-162-962-11	s	CERAMIC 470PF 10% 50V
C30	1-135-214-21	s	TANTAL 4.7uF 20% 20V
C31	1-135-214-21	s	TANTAL 4.7uF 20% 20V
C32	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C33	1-135-161-21	s	TANTALUM, CHIP 22uF 10% 10V
C34	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C35	1-135-161-21	s	TANTALUM, CHIP 22uF 10% 10V
C36	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V [for J, UC]
C36	1-164-155-11	s	CERAMIC 75PF 5% 50V [for EK]
C37	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V [for J, UC]
C37	1-164-155-11	s	CERAMIC 75PF 5% 50V [for EK]
C38	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C39	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C40	1-124-779-00	s	ELECT 10uF 20% 16V [for EK]
C42	1-135-159-21	s	TANTALUM, CHIP 10uF 10% 20V
C43	1-124-779-00	s	ELECT 10uF 20% 16V
C44	1-124-779-00	s	ELECT 10uF 20% 16V
C46	1-162-918-11	s	CERAMIC, CHIP 18PF 5% 50V
C47	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C49	1-162-911-11	s	CERAMIC, CHIP 6PF 50V
C50	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C51	1-162-910-11	s	CERAMIC 5PF 0.25PF 50V
C52	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C53	1-124-779-00	s	ELECT 10uF 20% 16V
C55	1-126-204-11	s	ELECT 47uF 20% 16V
C56	1-124-779-00	s	ELECT 10uF 20% 16V

(ES-7(J)/ES7(UC)/ES7(P) BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C57	1-124-779-00	s	ELECT 10uF 20% 16V
C58	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C59	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V [for J, UC]
C59	1-162-962-11	s	CERAMIC 470PF 10% 50V [for EK]
C60	1-135-070-00	s	TANTALUM, CHIP 0.1uF 10% 35V
C61	1-164-677-11	s	CERAMIC 0.033uF 10% 16V
C62	1-124-778-00	s	ELECT 22uF 20% 6.3V
C63	1-104-852-11	s	TANTALUM, CHIP 22uF 20% 10V
C64	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C65	1-164-156-11	s	CERAMIC 0.1uF 25V
C66	1-164-156-11	s	CERAMIC 0.1uF 25V
C67	1-124-779-00	s	ELECT 10uF 20% 16V
C68	1-124-779-00	s	ELECT 10uF 20% 16V
C69	1-124-779-00	s	ELECT 10uF 20% 16V
C70	1-162-918-11	s	CERAMIC, CHIP 18PF 5% 50V
C71	1-164-156-11	s	CERAMIC 0.1uF 25V
C72	1-164-156-11	s	CERAMIC 0.1uF 25V
C73	1-124-779-00	s	ELECT 10uF 20% 16V
C74	1-164-156-11	s	CERAMIC 0.1uF 25V
C75	1-126-206-11	s	ELECT 100uF 20% 6.3V
C76	1-126-206-11	s	ELECT 100uF 20% 6.3V
C77	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C78	1-164-156-11	s	CERAMIC 0.1uF 25V
C79	1-135-070-00	s	TANTALUM, CHIP 0.1uF 10% 35V
C81	1-162-918-11	s	CERAMIC, CHIP 18PF 5% 50V
C83	1-164-156-11	s	CERAMIC 0.1uF 25V
C84	1-135-179-21	s	TANTAL 2.2uF 10% 16V
C85	1-135-179-21	s	TANTAL 2.2uF 10% 16V
C86	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C87	1-135-076-21	s	TANTALUM, CHIP 1uF 10% 35V
C88	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C89	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C90	1-135-161-21	s	TANTALUM, CHIP 22uF 10% 10V
C91	1-135-161-21	s	TANTALUM, CHIP 22uF 10% 10V
C92	1-164-156-11	s	CERAMIC 0.1uF 25V [for EK]
C93	1-135-210-11	s	TANTALUM 4.7uF 10% 10V [for EK]
C94	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V [for EK]
C95	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C96	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C97	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C98	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C100	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C102	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V [for J, UC]
C104	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V [for EK]
C108	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C111	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C115	1-135-161-21	s	TANTALUM, CHIP 22uF 10% 10V
C116	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C117	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C118	1-162-964-11	s	CERAMIC 0.001uF 10% 50V
C119	1-162-964-11	s	CERAMIC 0.001uF 10% 50V
C120	1-162-964-11	s	CERAMIC 0.001uF 10% 50V
C200	1-124-778-00	s	ELECT 22uF 20% 6.3V
C201	1-126-205-11	s	ELECT 47uF 20% 6.3V
C202	1-135-161-21	s	TANTALUM, CHIP 22uF 10% 10V
C203	1-135-161-21	s	TANTALUM, CHIP 22uF 10% 10V

Please see page 13-40 for the part numbers of resistor that is not the parts list.

(ES-7(J)/ES7(UC)/ES7(P) BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C205	1-162-907-11	s	CERAMIC, CHIP 2PF 50V
C206	1-135-216-11	s	TANTALUM, CHIP 10uF 20% 10V
C207	1-135-216-11	s	TANTALUM, CHIP 10uF 20% 10V
C208	1-162-925-11	s	CERAMIC, CHIP 68PF 5% 50V [for J, UC]
C208	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V [for EK]
C209	1-135-073-00	s	TANTALUM, CHIP 0.33uF 10% 35V
C210	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C211	1-135-070-00	s	TANTALUM, CHIP 0.1uF 10% 35V
C212	1-135-070-00	s	TANTALUM, CHIP 0.1uF 10% 35V
C213	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C214	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C215	1-135-216-11	s	TANTALUM, CHIP 10uF 20% 10V
C216	1-162-925-11	s	CERAMIC, CHIP 68PF 5% 50V
C217	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C218	1-164-156-11	s	CERAMIC 0.1uF 25V
C219	1-131-377-00	s	TANTALUM 10uF 10% 10V [for EK]
C220	1-131-377-00	s	TANTALUM 10uF 10% 10V [for EK]
CN1	1-691-856-11	s	CONNECTOR, BOARD TO BOARD 60P
CP1	1-760-269-11	s	CRYSTAL 17.734475MHz [for EK]
D1	8-719-820-05	s	DIODE 1SS181
D2	8-719-800-76	s	DIODE 1SS226
D3	8-719-800-76	s	DIODE 1SS226
D4	8-719-800-76	s	DIODE 1SS226
D5	8-719-800-76	s	DIODE 1SS226
D6	8-719-820-05	s	DIODE 1SS181
D7	8-719-123-82	s	DIODE 1SS303
DL1	1-415-897-11	s	DELAY LINE
DL2	1-415-898-11	s	DELAY LINE
DL3	1-415-896-11	s	DELAY LINE
FL1	1-239-379-21	s	BPF [for J, UC]
FL1	1-239-380-11	s	FILTER, BANDPASS [for EK]
IC1	8-752-056-59	s	IC CXA1592R
IC2	8-759-710-24	s	IC NJM319M
IC3	8-759-209-69	s	IC TC4S11F
IC4	8-759-300-71	s	IC MC14053BF
IC5	8-759-209-97	s	IC TC4S81F
IC6	8-759-031-84	s	IC SC7S04F
IC7	8-759-209-54	s	IC TC4S01F
IC8	8-759-906-59	s	IC CX22017
IC9	8-759-031-84	s	IC SC7S04F [for EK]
IC10	8-759-031-84	s	IC SC7S04F
IC11	8-759-234-13	s	IC TC4S30F
IC12	8-759-239-34	s	IC TC74HC4538AF
IC13	8-759-906-53	s	IC TL062CPS
IC14	8-759-902-88	s	IC SN74LS123NS
IC15	8-759-906-53	s	IC TL062CPS
IC16	8-759-300-71	s	IC MC14053BF
IC17	8-759-007-64	s	IC MC74HC76F
IC19	8-759-702-08	s	IC NJM360M
IC20	8-752-335-47	s	IC CXD1216M
IC21	8-759-234-77	s	IC TC4S66F
IC22	8-752-332-67	s	IC CXD1217M
IC23	8-759-101-12	s	IC UPC311G2
IC24	8-759-031-84	s	IC SC7S04F

(ES-7(J)/ES7(UC)/ES7(P) BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
L1	1-410-385-11	s	INDUCTOR, CHIP 22uH
L3	1-410-389-31	s	INDUCTOR CHIP 47uH
L4	1-412-280-31	s	INDUCTOR 330UH
L5	1-412-280-31	s	INDUCTOR 330UH
L6	1-410-389-31	s	INDUCTOR CHIP 47uH
L7	1-410-389-31	s	INDUCTOR CHIP 47uH
L8	1-410-656-11	s	INDUCTOR CHIP 150UH [for J, UC]
L8	1-410-393-11	s	INDUCTOR CHIP 100uH [for EK]
L9	1-410-389-31	s	INDUCTOR CHIP 47uH [for EK]
L10	1-410-389-31	s	INDUCTOR CHIP 47uH
L11	1-410-385-11	s	INDUCTOR, CHIP 22uH
L12	1-410-385-11	s	INDUCTOR, CHIP 22uH
L14	1-410-385-11	s	INDUCTOR, CHIP 22uH
L20	1-410-389-31	s	INDUCTOR CHIP 47uH
L21	1-410-387-11	s	INDUCTOR CHIP 33UH
LV1	1-408-844-00	s	INDUCTOR, VAR, 22uH
Q1	8-729-117-72	s	TRANSISTOR 2SC4178
Q2	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q5	8-729-117-72	s	TRANSISTOR 2SC4178
Q6	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q7	8-729-905-23	s	TRANSISTOR 2SA1576R
Q8	8-729-905-23	s	TRANSISTOR 2SA1576R
Q9	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q10	8-729-905-23	s	TRANSISTOR 2SA1576R
Q11	8-729-920-39	s	TRANSISTOR IMT1US
Q12	8-729-920-39	s	TRANSISTOR IMT1US
Q13	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q14	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q15	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q16	8-729-907-26	s	TRANSISTOR IMX1
Q17	8-729-903-10	s	TRANSISTOR FMW1
Q18	8-729-905-23	s	TRANSISTOR 2SA1576R
Q19	8-729-907-26	s	TRANSISTOR IMX1
Q20	8-729-920-39	s	TRANSISTOR IMT1US
Q21	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q22	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q23	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q24	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q25	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q26	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q30	8-729-905-23	s	TRANSISTOR 2SA1576R
Q31	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q34	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q35	8-729-117-72	s	TRANSISTOR 2SC4178
Q36	8-729-117-72	s	TRANSISTOR 2SC4178
Q100	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q101	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q102	8-729-905-23	s	TRANSISTOR 2SA1576R
Q103	8-729-402-19	s	TRANSISTOR XN6501
Q104	8-729-403-29	s	TRANSISTOR XN6435
Q105	8-729-402-84	s	TRANSISTOR XN4601
R2	1-218-716-11	s	METAL 10K 0.50% 1/16W
R3	1-218-717-11	s	METAL, CHIP 11K 0.50% 1/16W
R4	1-218-695-11	s	METAL 1.3K 0.50% 1/16W
R5	1-218-845-11	s	METAL, CHIP 820 0.50% 1/16W
R7	1-218-836-11	s	METAL, CHIP 360 0.50% 1/16W

Please see page 13-40 for the part numbers of resistor that is not the parts list.

Ref. No. or Q'ty	Part No.	SP	Description
R16	1-218-836-11	s	METAL, CHIP 360 0.50% 1/16W
R18	1-218-705-11	s	METAL 3.6K 0.50% 1/16W
R19	1-218-697-11	s	METAL 1.6K 0.50% 1/16W
R20	1-218-836-11	s	METAL, CHIP 360 0.50% 1/16W
R21	1-218-851-11	s	METAL CHIP 1.5K 0.50% 1/16W
R22	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W
R26	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W
R27	1-218-672-11	s	METAL 150 0.50% 1/16W [for J, UC]
R27	1-218-829-11	s	METAL, CHIP 180 0.50% 1/16W [for EK]
R47	1-218-699-11	s	METAL, CHIP 2K 0.50% 1/16W
R48	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W
R52	1-218-699-11	s	METAL, CHIP 2K 0.50% 1/16W
R57	1-218-699-11	s	METAL, CHIP 2K 0.50% 1/16W
R66	1-218-833-11	s	METAL, CHIP 270 0.50% 1/16W
R67	1-218-724-11	s	METAL 22K 0.50% 1/16W
R69	1-218-873-11	s	METAL, CHIP 12K 0.50% 1/16W
R70	1-218-833-11	s	METAL, CHIP 270 0.50% 1/16W
R71	1-218-724-11	s	METAL 22K 0.50% 1/16W
R72	1-218-873-11	s	METAL, CHIP 12K 0.50% 1/16W
R73	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W
R75	1-218-840-11	s	METAL, CHIP 510 0.50% 1/16W
R80	1-218-692-11	s	METAL 1K 0.50% 1/16W
R83	1-218-692-11	s	METAL 1K 0.50% 1/16W
R84	1-218-705-11	s	METAL 3.6K 0.50% 1/16W [for EK]
R90	1-218-706-11	s	METAL 3.9K 0.50% 1/16W
R91	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R92	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R93	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R102	1-211-990-11	s	METAL CHIP 75 0.50% 1/16W
R103	1-218-868-11	s	METAL CHIP 7.5K 0.50% 1/16W
R104	1-218-856-11	s	CHIP, METAL 2.4K 0.50% 1/16W
R105	1-218-704-11	s	METAL 3.3K 0.50% 1/16W
R107	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R108	1-218-705-11	s	METAL 3.6K 0.50% 1/16W
R109	1-211-977-11	s	METAL CHIP 22 0.50% 1/16W
R110	1-218-889-11	s	CHIP, METAL 56K 0.50% 1/16W
R111	1-218-736-11	s	METAL 68K 0.50% 1/16W
R113	1-211-977-11	s	METAL CHIP 22 0.50% 1/16W
R115	1-218-692-11	s	METAL 1K 0.50% 1/16W
R117	1-218-883-11	s	METAL 33K 0.50% 1/16W [for J, UC]
R117	1-218-708-11	s	METAL 4.7K 0.50% 1/16W [for EK]
R121	1-218-716-11	s	METAL 10K 0.50% 1/16W [for J, UC]
R121	1-218-714-11	s	METAL 8.2K 0.50% 1/16W [for EK]
R122	1-218-727-11	s	METAL 30K 0.50% 1/16W
R123	1-218-723-11	s	METAL 20K 0.50% 1/16W
R129	1-218-881-11	s	METAL CHIP 27K 0.50% 1/16W
R130	1-218-881-11	s	METAL CHIP 27K 0.50% 1/16W
R137	1-211-990-11	s	METAL CHIP 75 0.50% 1/16W
R141	1-218-725-11	s	METAL 24K 0.50% 1/16W
R145	1-218-840-11	s	METAL, CHIP 510 0.50% 1/16W
R148	1-218-717-11	s	METAL, CHIP 11K 0.50% 1/16W
R149	1-218-700-11	s	METAL 2.2K 0.50% 1/16W
R150	1-218-710-11	s	METAL, CHIP 5.6K 0.50% 1/16W
R151	1-218-692-11	s	METAL 1K 0.50% 1/16W
R190	1-218-836-11	s	METAL, CHIP 360 0.50% 1/16W
R191	1-218-836-11	s	METAL, CHIP 360 0.50% 1/16W
R215	1-218-699-11	s	METAL, CHIP 2K 0.50% 1/16W
R230	1-218-692-11	s	METAL 1K 0.50% 1/16W

Ref. No. or Q'ty	Part No.	SP	Description
R231	1-218-692-11	s	METAL 1K 0.50% 1/16W
R307	1-218-883-11	s	METAL 33K 0.50% 1/16W
R308	1-218-706-11	s	METAL 3.9K 0.50% 1/16W
R309	1-218-700-11	s	METAL 2.2K 0.50% 1/16W
R310	1-218-698-11	s	METAL 1.8K 0.50% 1/16W
R311	1-218-704-11	s	METAL 3.3K 0.50% 1/16W
R312	1-218-848-11	s	METAL CHIP 1.1K 0.50% 1/16W
R321	1-218-866-11	s	METAL CHIP 6.2K 0.50% 1/16W
R330	1-218-868-11	s	METAL CHIP 7.5K 0.50% 1/16W
RV1	1-238-091-11	s	RES, ADJ METAL 22K
RV2	1-238-091-11	s	RES, ADJ METAL 22K
RV3	1-238-090-11	s	RES, ADJ, 10K
RV4	1-238-091-11	s	RES, ADJ METAL 22K
RV5	1-238-090-11	s	RES, ADJ, 10K
RV6	1-238-090-11	s	RES, ADJ, 10K
RV7	1-238-089-11	s	RES, ADJ, 4.7K
RV8	1-238-088-11	s	RES, ADJ, 2.2K
RV9	1-238-089-11	s	RES, ADJ, 4.7K
RV10	1-238-089-11	s	RES, ADJ, 4.7K
RV12	1-238-089-11	s	RES, ADJ, 4.7K
RV13	1-238-089-11	s	RES, ADJ, 4.7K
RV14	1-238-088-11	s	RES, ADJ, 2.2K
RV15	1-238-090-11	s	RES, ADJ, 10K

Please see page 13-40 for the part numbers of resistor that is not the parts list.

FE-18 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8275-593-A	o	MOUNTED CIRCUIT BOARD, FE-18
C1	1-163-017-00	s	CERAMIC, CHIP 0.0047uF 5% 50V
C2	1-163-017-00	s	CERAMIC, CHIP 0.0047uF 5% 50V
C3	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V
C4	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V
C5	1-136-562-11	s	FILM 0.0082uF 5% 200V
C6	1-163-125-00	s	CERAMIC, CHIP 220PF 5% 50V
C7	1-164-756-11	s	CERAMIC CHIP 0.0033uF 5% 50V
C10	1-126-157-11	s	ELECT 10uF 20% 16V
CN320	1-506-488-11	s	CONNECTOR, 9P, MALE
L1	1-464-909-11	s	COIL, SENSOR
L2	1-408-429-00	s	INDUCTOR 470uH
L3	1-408-429-00	s	INDUCTOR 470uH
Q1	8-729-141-75	s	TRANSISTOR 2SD596DV345
Q2	8-729-141-75	s	TRANSISTOR 2SD596DV345
R1	1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
R2	1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
R3	1-217-671-11	s	METAL 1 5% 1/10W
T1	1-424-511-11	s	TRANSFORMER, FE

FL-160 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-651-202-11	o	PRINTED CIRCUIT BOARD, FL-160
1pc	8-825-779-51	s	HEAD, AU PS244-2103K

IE-33U/IE33UP BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8263-940-A	o	MOUNTED CIRCUIT BOARD, IE-33U [for J, UC]
1pc	A-8263-942-A	o	MOUNTED CIRCUIT BOARD, IE-33UP [for EK]
2pcs	7-627-554-27	s	SCREW, PRECITION +P 2X6 TYPE1
C1	1-164-156-11	s	CERAMIC 0.1uF 25V
C2	1-135-161-21	s	TANTALUM, CHIP 22uF 10% 10V
C3	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C4	1-135-161-21	s	TANTALUM, CHIP 22uF 10% 10V
C5	1-162-911-11	s	CERAMIC, CHIP 6PF 50V
C6	1-124-778-00	s	ELECT 22uF 20% 6.3V
C7	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C8	1-162-915-11	s	CERAMIC, CHIP 10PF 5PF 50V
C9	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C10	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C11	1-135-070-00	s	TANTALUM, CHIP 0.1uF 10% 35V
C12	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C14	1-162-911-11	s	CERAMIC, CHIP 6PF 50V
C15	1-124-778-00	s	ELECT 22uF 20% 6.3V
C16	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C17	1-162-915-11	s	CERAMIC, CHIP 10PF 5PF 50V
C18	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C19	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C20	1-135-070-00	s	TANTALUM, CHIP 0.1uF 10% 35V
C21	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C23	1-162-909-11	s	CERAMIC 4PF 0.25PF 50V
C24	1-124-778-00	s	ELECT 22uF 20% 6.3V
C25	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C26	1-162-915-11	s	CERAMIC, CHIP 10PF 5PF 50V
C27	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C28	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C29	1-135-070-00	s	TANTALUM, CHIP 0.1uF 10% 35V
C30	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C31	1-124-778-00	s	ELECT 22uF 20% 6.3V
C32	1-162-915-11	s	CERAMIC, CHIP 10PF 5PF 50V
C33	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C34	1-162-915-11	s	CERAMIC, CHIP 10PF 5PF 50V
C35	1-162-915-11	s	CERAMIC, CHIP 10PF 5PF 50V
C36	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C37	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C38	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C39	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C40	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C41	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C42	1-124-778-00	s	ELECT 22uF 20% 6.3V
C43	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C44	1-124-779-00	s	ELECT 10uF 20% 16V
C45	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C48	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C49	1-126-193-11	s	ELECT 1uF 20% 50V
C50	1-162-964-11	s	CERAMIC 0.001uF 10% 50V
C51	1-164-156-11	s	CERAMIC 0.1uF 25V
C52	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C53	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C54	1-126-193-11	s	ELECT 1uF 20% 50V
C55	1-162-964-11	s	CERAMIC 0.001uF 10% 50V
C56	1-164-156-11	s	CERAMIC 0.1uF 25V
C57	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C59	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V

Please see page 13-40 for the part numbers of resistor that is not the parts list.

(IE-33U/IE33UP BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C60	1-124-779-00	s	ELECT 10uF 20% 16V
C61	1-162-905-11	s	CERAMIC 1PF 0.25PF 50V
C62	1-162-909-11	s	CERAMIC 4PF 0.25PF 50V
C63	1-162-908-11	s	CERAMIC 3PF 0.25PF 50V
C64	1-162-917-11	s	CERAMIC, CHIP 15PF 5% 50V
C65	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C66	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C67	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C68	1-126-193-11	s	ELECT 1uF 20% 50V
C69	1-162-964-11	s	CERAMIC 0.001uF 10% 50V
C70	1-164-156-11	s	CERAMIC 0.1uF 25V
C71	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C72	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C73	1-126-193-11	s	ELECT 1uF 20% 50V
C74	1-162-964-11	s	CERAMIC 0.001uF 10% 50V
C75	1-164-156-11	s	CERAMIC 0.1uF 25V
C76	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C78	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C79	1-124-779-00	s	ELECT 10uF 20% 16V
C80	1-162-905-11	s	CERAMIC 1PF 0.25PF 50V
C81	1-162-909-11	s	CERAMIC 4PF 0.25PF 50V
C82	1-162-908-11	s	CERAMIC 3PF 0.25PF 50V
C83	1-162-917-11	s	CERAMIC, CHIP 15PF 5% 50V
C84	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C85	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C86	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C87	1-162-917-11	s	CERAMIC, CHIP 15PF 5% 50V
C88	1-135-159-21	s	TANTALUM, CHIP 10uF 10% 20V
C89	1-135-161-21	s	TANTALUM, CHIP 22uF 10% 10V
C90	1-162-925-11	s	CERAMIC, CHIP 68PF 5% 50V
C91	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C92	1-162-915-11	s	CERAMIC, CHIP 10PF 5PF 50V
C94	1-162-911-11	s	CERAMIC, CHIP 6PF 50V
C96	1-162-911-11	s	CERAMIC, CHIP 6PF 50V
C98	1-135-211-11	s	TANTALUM, CHIP 6.8uF 20% 6.3V
C99	1-135-211-11	s	TANTALUM, CHIP 6.8uF 20% 6.3V
C100	1-135-211-11	s	TANTALUM, CHIP 6.8uF 20% 6.3V
C101	1-162-916-11	s	CERAMIC, CHIP 12PF 5% 50V
C103	1-162-905-11	s	CERAMIC 1PF 0.25PF 50V
C104	1-162-913-11	s	CERAMIC 8PF 0.5PF 50V
C105	1-162-905-11	s	CERAMIC 1PF 0.25PF 50V
C106	1-162-913-11	s	CERAMIC 8PF 0.5PF 50V
C107	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C108	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C109	1-135-161-21	s	TANTALUM, CHIP 22uF 10% 10V
C110	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C111	1-162-915-11	s	CERAMIC, CHIP 10PF 5PF 50V
C118	1-162-915-11	s	CERAMIC, CHIP 10PF 5PF 50V
C120	1-128-394-11	s	ELECT 220uF 20% 10V
C121	1-162-915-11	s	CERAMIC, CHIP 10PF 5PF 50V
C122	1-162-915-11	s	CERAMIC, CHIP 10PF 5PF 50V
CN1	1-691-856-11	s	CONNECTOR, BOARD TO BOARD 60P
D1	8-719-820-05	s	DIODE 1SS181
D2	8-719-820-05	s	DIODE 1SS181
D3	8-719-404-35	s	DIODE MA141WK
D4	8-719-404-35	s	DIODE MA141WK
D5	8-719-404-35	s	DIODE MA141WK

(IE-33U/IE33UP BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
D6	8-719-404-35	s	DIODE MA141WK
D7	8-719-404-35	s	DIODE MA141WK
D8	8-719-404-35	s	DIODE MA141WK
DL1	1-415-895-11	s	DELAY LINE
FL1	1-409-427-11	s	FILTER, TRAP 14.3MHz
FL2	1-409-427-11	s	FILTER, TRAP 14.3MHz
FL3	1-409-427-11	s	FILTER, TRAP 14.3MHz
IC1	8-759-906-53	s	IC TL062CPS
IC2	8-759-300-71	s	IC MC14053BF
IC3	8-759-906-53	s	IC TL062CPS
IC4	8-759-300-71	s	IC MC14053BF
IC5	8-759-234-77	s	IC TC4S66F
IC6	8-759-209-57	s	IC TC4S69F
IC7	8-759-204-51	s	IC TC40H008F
IC9	8-759-925-90	s	IC SN74HC74ANS
IC10	8-759-635-27	s	IC M62352GP
IC11	8-759-209-57	s	IC TC4S69F
IC12	8-759-234-20	s	IC TC7S08F
IC14	8-752-332-69	s	IC CXL5504M
IC15	8-752-332-69	s	IC CXL5504M
IC16	8-752-332-69	s	IC CXL5504M
IC17	8-752-332-69	s	IC CXL5504M
IC18	8-759-204-40	s	IC TC40H027F
IC19	8-759-201-50	s	IC TC40H193F
IC20	8-759-927-46	s	IC SN74HC00ANS
IC21	8-759-925-90	s	IC SN74HC74ANS
IC22	8-759-925-90	s	IC SN74HC74ANS
IC23	8-759-925-72	s	IC SN74HC02ANS
L1	1-410-385-11	s	INDUCTOR, CHIP 22uH
L2	1-410-377-31	s	INDUCTOR CHIP 4.7uH
L3	1-410-373-31	s	INDUCTOR CHIP 2.2uH
L4	1-410-377-31	s	INDUCTOR CHIP 4.7uH
L5	1-410-373-31	s	INDUCTOR CHIP 2.2uH
L6	1-410-387-11	s	INDUCTOR CHIP 33UH
L7	1-410-387-11	s	INDUCTOR CHIP 33UH
L8	1-412-282-41	s	INDUCTOR 470uH
L9	1-410-385-11	s	INDUCTOR, CHIP 22uH
L10	1-410-385-11	s	INDUCTOR, CHIP 22uH
L11	1-410-385-11	s	INDUCTOR, CHIP 22uH
L12	1-410-389-31	s	INDUCTOR CHIP 47uH
L13	1-410-385-11	s	INDUCTOR, CHIP 22uH
Q1	8-729-905-23	s	TRANSISTOR 2SA1576R
Q2	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4	8-729-905-23	s	TRANSISTOR 2SA1576R
Q5	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q6	8-729-142-90	s	TRANSISTOR 2SK853-K5
Q7	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q8	8-729-905-23	s	TRANSISTOR 2SA1576R
Q9	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q10	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q11	8-729-905-23	s	TRANSISTOR 2SA1576R
Q12	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q13	8-729-142-90	s	TRANSISTOR 2SK853-K5
Q14	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q15	8-729-905-23	s	TRANSISTOR 2SA1576R

Please see page 13-40 for the part numbers of resistor that is not the parts list.

(IE-33U/IE33UP BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q16	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q17	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q18	8-729-905-23	s	TRANSISTOR 2SA1576R
Q19	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q20	8-729-142-90	s	TRANSISTOR 2SK853-K5
Q21	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q22	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q23	8-729-905-23	s	TRANSISTOR 2SA1576R
Q24	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q25	8-729-905-23	s	TRANSISTOR 2SA1576R
Q26	8-729-905-23	s	TRANSISTOR 2SA1576R
Q27	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q28	8-729-117-72	s	TRANSISTOR 2SC4178
Q29	8-729-117-72	s	TRANSISTOR 2SC4178
Q30	8-729-905-23	s	TRANSISTOR 2SA1576R
Q31	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q32	8-729-905-23	s	TRANSISTOR 2SA1576R
Q33	8-729-905-23	s	TRANSISTOR 2SA1576R
Q34	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q35	8-729-905-23	s	TRANSISTOR 2SA1576R
Q36	8-729-905-23	s	TRANSISTOR 2SA1576R
Q37	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q38	8-729-117-72	s	TRANSISTOR 2SC4178
Q39	8-729-117-72	s	TRANSISTOR 2SC4178
Q40	8-729-905-23	s	TRANSISTOR 2SA1576R
Q41	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q42	8-729-905-23	s	TRANSISTOR 2SA1576R
Q43	8-729-905-23	s	TRANSISTOR 2SA1576R
Q44	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q45	8-729-117-72	s	TRANSISTOR 2SC4178
Q46	8-729-117-72	s	TRANSISTOR 2SC4178
Q47	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q48	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q49	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q50	8-729-117-72	s	TRANSISTOR 2SC4178
Q51	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q52	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q53	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q57	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q58	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q59	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q60	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q61	8-729-905-23	s	TRANSISTOR 2SA1576R
R1	1-218-692-11	s	METAL 1K 0.50% 1/16W
R2	1-218-730-11	s	METAL, CHIP 39K 0.50% 1/16W
R19	1-218-692-11	s	METAL 1K 0.50% 1/16W
R20	1-218-730-11	s	METAL, CHIP 39K 0.50% 1/16W
R26	1-218-699-11	s	METAL, CHIP 2K 0.50% 1/16W
R36	1-218-692-11	s	METAL 1K 0.50% 1/16W
R37	1-218-730-11	s	METAL, CHIP 39K 0.50% 1/16W
R63	1-218-706-11	s	METAL 3.9K 0.50% 1/16W
R69	1-218-732-11	s	METAL 47K 0.50% 1/16W
R75	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W
R86	1-218-722-11	s	METAL, CHIP 18K 0.50% 1/16W
R87	1-218-873-11	s	METAL, CHIP 12K 0.50% 1/16W
R90	1-218-684-11	s	METAL 470 0.50% 1/16W
R93	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W
R94	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W

(IE-33U/IE33UP BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R104	1-218-722-11	s	METAL, CHIP 18K 0.50% 1/16W
R105	1-218-873-11	s	METAL, CHIP 12K 0.50% 1/16W
R108	1-218-684-11	s	METAL 470 0.50% 1/16W
R111	1-218-710-11	s	METAL, CHIP 5.6K 0.50% 1/16W
R112	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W
R113	1-218-710-11	s	METAL, CHIP 5.6K 0.50% 1/16W
R122	1-218-716-11	s	METAL 10K 0.50% 1/16W
R123	1-218-716-11	s	METAL 10K 0.50% 1/16W
R125	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R131	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W
R134	1-218-836-11	s	METAL, CHIP 360 0.50% 1/16W
R135	1-218-836-11	s	METAL, CHIP 360 0.50% 1/16W
R136	1-218-858-11	s	METAL CHIP 3K 0.50% 1/16W
R137	1-218-700-11	s	METAL 2.2K 0.50% 1/16W
R148	1-218-692-11	s	METAL 1K 0.50% 1/16W
R149	1-218-692-11	s	METAL 1K 0.50% 1/16W
R150	1-218-692-11	s	METAL 1K 0.50% 1/16W
R160	1-218-706-11	s	METAL 3.9K 0.50% 1/16W
R161	1-218-873-11	s	METAL, CHIP 12K 0.50% 1/16W
R164	1-218-873-11	s	METAL, CHIP 12K 0.50% 1/16W
R165	1-218-873-11	s	METAL, CHIP 12K 0.50% 1/16W
R169	1-218-692-11	s	METAL 1K 0.50% 1/16W
R184	1-218-692-11	s	METAL 1K 0.50% 1/16W
R190	1-218-697-11	s	METAL 1.6K 0.50% 1/16W
RV1	1-238-089-11	s	RES, ADJ, 4.7K
RV2	1-238-089-11	s	RES, ADJ, 4.7K
RV3	1-238-089-11	s	RES, ADJ, 4.7K
RV4	1-241-266-11	s	RES, ADJ, METAL 50K
RV5	1-241-266-11	s	RES, ADJ, METAL 50K
RV6	1-241-266-11	s	RES, ADJ, METAL 50K
RV7	1-238-089-11	s	RES, ADJ, 4.7K
RV8	1-238-089-11	s	RES, ADJ, 4.7K
RV9	1-238-089-11	s	RES, ADJ, 4.7K
RV10	1-238-089-11	s	RES, ADJ, 4.7K
RV11	1-241-262-11	s	RES, ADJ, METALT 2K
RV12	1-241-263-11	s	RES, ADJ, METALT 5K
RV13	1-241-263-11	s	RES, ADJ, METALT 5K
RV14	1-238-090-11	s	RES, ADJ, 10K
RV16	1-238-088-11	s	RES, ADJ, 2.2K
RV17	1-238-091-11	s	RES, ADJ METAL 22K
RV18	1-238-088-11	s	RES, ADJ, 2.2K
S1	1-572-272-11	s	SWITCH, SLIDE [for J, UC]
TH1	1-806-627-21	s	THERMISTOR (POSITIVE) 1K

Please see page 13-40 for the part numbers of resistor that is not the parts list.

IF-454 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8275-584-A	o	MOUNTED CIRCUIT BOARD, IF-454
2pcs	7-627-554-27	s	SCREW, PRECITION +P 2X6 TYPE1
C1	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C2	1-135-215-21	s	TANTALUM, CHIP 6.8uF 20% 16V
C3	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C4	1-135-215-21	s	TANTALUM, CHIP 6.8uF 20% 16V
C5	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C6	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C7	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C8	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C9	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C12	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C13	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C14	1-163-220-11	s	CERAMIC 3PF 0.25PF 50V
C15	1-163-097-00	s	CERAMIC, CHIP 15PF 5% 50V
C16	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C17	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C18	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C19	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C22	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C23	1-163-220-11	s	CERAMIC 3PF 0.25PF 50V
C24	1-163-091-00	s	CERAMIC, CHIP 8PF 50V
C25	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C26	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C27	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C29	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C30	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C31	1-163-220-11	s	CERAMIC 3PF 0.25PF 50V
C32	1-163-089-00	s	CERAMIC, CHIP 6PF 50V
C33	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C34	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C36	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C37	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C39	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C40	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C41	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C42	1-135-216-11	s	TANTALUM, CHIP 10uF 20% 10V
C43	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C44	1-135-165-11	s	TANTALUM, CHIP 33uF 10% 16V
C45	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C46	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C47	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C48	1-163-085-00	s	CERAMIC, CHIP 2PF 50V
C49	1-163-089-00	s	CERAMIC, CHIP 6PF 50V
C50	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C51	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C52	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C53	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C54	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C55	1-135-145-11	s	TANTALUM, CHIP 0.47uF 10% 35V
C56	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C57	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C58	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C59	1-135-216-11	s	TANTALUM, CHIP 10uF 20% 10V
C60	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C61	1-135-165-11	s	TANTALUM, CHIP 33uF 10% 16V
C62	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C63	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C64	1-163-217-11	s	CERAMIC 1PF 0.25PF 50V
C65	1-163-220-11	s	CERAMIC 3PF 0.25PF 50V
C66	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C67	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C68	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C69	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C70	1-135-145-11	s	TANTALUM, CHIP 0.47uF 10% 35V
C71	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C72	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C73	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C74	1-135-216-11	s	TANTALUM, CHIP 10uF 20% 10V
C75	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C76	1-135-165-11	s	TANTALUM, CHIP 33uF 10% 16V
C77	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C78	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C79	1-163-217-11	s	CERAMIC 1PF 0.25PF 50V
C80	1-163-220-11	s	CERAMIC 3PF 0.25PF 50V
C81	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C82	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C84	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C85	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C86	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C87	1-104-852-11	s	TANTALUM, CHIP 22uF 20% 10V
C90	1-135-159-21	s	TANTALUM, CHIP 10uF 10% 20V
C92	1-104-852-11	s	TANTALUM, CHIP 22uF 20% 10V
C93	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C94	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C95	1-163-220-11	s	CERAMIC 3PF 0.25PF 50V
C96	1-164-222-11	s	CERAMIC 0.22uF 25V
C97	1-164-222-11	s	CERAMIC 0.22uF 25V
C99	1-104-852-11	s	TANTALUM, CHIP 22uF 20% 10V
C100	1-104-852-11	s	TANTALUM, CHIP 22uF 20% 10V
C101	1-163-113-00	s	CERAMIC, CHIP 68PF 5% 50V
CN1	1-691-856-11	s	CONNECTOR, BOARD TO BOARD 60P
D1	8-719-800-76	s	DIODE 1SS226
D2	8-719-157-36	s	DIODE RD6.8M-B
D3	8-719-105-91	s	DIODE RD5.6M-B2
DL1	1-406-729-21	s	DELAY LINE, 120nS
DL2	1-406-729-21	s	DELAY LINE, 120nS
IC1	8-759-300-71	s	IC MC14053BF
IC2	8-759-230-99	s	IC TC74HC4053AF
L1	1-408-781-00	s	INDUCTOR CHIP 22uH
L2	1-410-385-11	s	INDUCTOR, CHIP 22uH
L4	1-408-781-00	s	INDUCTOR CHIP 22uH
L5	1-408-781-00	s	INDUCTOR CHIP 22uH
Q1	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q2	8-729-141-48	s	TRANSISTOR 2SB624-BV345
Q3	8-729-141-75	s	TRANSISTOR 2SD596DV345
Q4	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q5	8-729-216-22	s	TRANSISTOR 2SA1162
Q6	8-729-175-73	s	TRANSISTOR 2SC2757
Q7	8-729-175-73	s	TRANSISTOR 2SC2757
Q8	8-729-122-63	s	TRANSISTOR 2SA1226
Q9	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q10	8-729-216-22	s	TRANSISTOR 2SA1162
Q11	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6

Please see page 13-40 for the part numbers of resistor that is not the parts list.

(IF-454 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q12	8-729-216-22	s	TRANSISTOR 2SA1162
Q13	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q14	8-729-216-22	s	TRANSISTOR 2SA1162
Q15	8-729-175-73	s	TRANSISTOR 2SC2757
Q16	8-729-175-73	s	TRANSISTOR 2SC2757
Q17	8-729-122-63	s	TRANSISTOR 2SA1226
Q18	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q19	8-729-216-22	s	TRANSISTOR 2SA1162
Q20	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q21	8-729-216-22	s	TRANSISTOR 2SA1162
Q22	8-729-216-22	s	TRANSISTOR 2SA1162
Q23	8-729-175-73	s	TRANSISTOR 2SC2757
Q24	8-729-175-73	s	TRANSISTOR 2SC2757
Q25	8-729-122-63	s	TRANSISTOR 2SA1226
Q26	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q27	8-729-216-22	s	TRANSISTOR 2SA1162
Q28	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q29	8-729-216-22	s	TRANSISTOR 2SA1162
Q30	8-729-216-22	s	TRANSISTOR 2SA1162
Q31	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q32	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q33	8-729-122-63	s	TRANSISTOR 2SA1226
Q35	8-729-175-73	s	TRANSISTOR 2SC2757
Q36	8-729-175-73	s	TRANSISTOR 2SC2757
Q37	8-729-122-63	s	TRANSISTOR 2SA1226
Q38	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q39	8-729-216-22	s	TRANSISTOR 2SA1162
Q40	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q41	8-729-216-22	s	TRANSISTOR 2SA1162
Q42	8-729-175-73	s	TRANSISTOR 2SC2757
Q43	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q44	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q45	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q46	8-729-216-22	s	TRANSISTOR 2SA1162
Q47	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q48	8-729-122-63	s	TRANSISTOR 2SA1226
Q50	8-729-175-73	s	TRANSISTOR 2SC2757
Q51	8-729-175-73	s	TRANSISTOR 2SC2757
Q52	8-729-122-63	s	TRANSISTOR 2SA1226
Q53	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q54	8-729-216-22	s	TRANSISTOR 2SA1162
Q55	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q56	8-729-216-22	s	TRANSISTOR 2SA1162
Q57	8-729-122-63	s	TRANSISTOR 2SA1226
Q58	8-729-175-73	s	TRANSISTOR 2SC2757
Q59	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q60	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q61	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q62	8-729-216-22	s	TRANSISTOR 2SA1162
Q63	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q64	8-729-122-63	s	TRANSISTOR 2SA1226
Q66	8-729-175-73	s	TRANSISTOR 2SC2757
Q67	8-729-175-73	s	TRANSISTOR 2SC2757
Q68	8-729-122-63	s	TRANSISTOR 2SA1226
Q69	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q70	8-729-216-22	s	TRANSISTOR 2SA1162
Q71	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q72	8-729-216-22	s	TRANSISTOR 2SA1162
Q73	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6

(IF-454 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q74	8-729-216-22	s	TRANSISTOR 2SA1162
Q75	8-729-175-73	s	TRANSISTOR 2SC2757
Q76	8-729-175-73	s	TRANSISTOR 2SC2757
Q77	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q78	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q81	8-729-175-73	s	TRANSISTOR 2SC2757
Q82	8-729-175-73	s	TRANSISTOR 2SC2757
Q83	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
R1	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R2	1-216-081-00	s	METAL, CHIP 22K 5% 1/10W
R3	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R4	1-216-089-91	s	METAL 47K 5% 1/10W
R5	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R6	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R7	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R8	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R9	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R10	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R11	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R12	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R13	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R14	1-216-661-11	s	METAL, CHIP 2.7K 0.5% 1/10W
R15	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R16	1-216-059-00	s	METAL, CHIP 2.7K 5% 1/10W
R17	1-216-059-00	s	METAL, CHIP 2.7K 5% 1/10W
R18	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R19	1-216-039-00	s	METAL, CHIP 390 5% 1/10W
R20	1-216-039-00	s	METAL, CHIP 390 5% 1/10W
R21	1-216-298-00	s	METAL, CHIP 2.2 5% 1/10W
R22	1-216-298-00	s	METAL, CHIP 2.2 5% 1/10W
R23	1-216-029-00	s	METAL, CHIP 150 5% 1/10W
R24	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R25	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R26	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R27	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R28	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R29	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R30	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R31	1-216-661-11	s	METAL, CHIP 2.7K 0.5% 1/10W
R32	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R33	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R34	1-216-059-00	s	METAL, CHIP 2.7K 5% 1/10W
R35	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R36	1-216-039-00	s	METAL, CHIP 390 5% 1/10W
R37	1-216-039-00	s	METAL, CHIP 390 5% 1/10W
R38	1-216-298-00	s	METAL, CHIP 2.2 5% 1/10W
R39	1-216-298-00	s	METAL, CHIP 2.2 5% 1/10W
R40	1-216-029-00	s	METAL, CHIP 150 5% 1/10W
R41	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R42	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R43	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R44	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R45	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R46	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R47	1-216-661-11	s	METAL, CHIP 2.7K 0.5% 1/10W
R48	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R49	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R50	1-216-083-00	s	METAL, CHIP 27K 5% 1/10W

Please see page 13-40 for the part numbers of resistor that is not the parts list.

(IF-454 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R51	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R52	1-216-039-00	s	METAL, CHIP 390 5% 1/10W
R53	1-216-039-00	s	METAL, CHIP 390 5% 1/10W
R54	1-216-298-00	s	METAL, CHIP 2.2 5% 1/10W
R55	1-216-298-00	s	METAL, CHIP 2.2 5% 1/10W
R56	1-216-029-00	s	METAL, CHIP 150 5% 1/10W
R57	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R58	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R59	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R60	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R62	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R63	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R64	1-216-295-00	s	METAL, CHIP 0 5% 1/10W
R66	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R67	1-216-091-00	s	METAL, CHIP 56K 5% 1/10W
R68	1-216-081-00	s	METAL, CHIP 22K 5% 1/10W
R69	1-216-059-00	s	METAL, CHIP 2.7K 5% 1/10W
R70	1-208-789-11	s	CHIP, METAL 2K 0.50% 1/10W
R71	1-208-789-11	s	CHIP, METAL 2K 0.50% 1/10W
R72	1-216-047-91	s	METAL 820 5% 1/10W
R73	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R75	1-216-623-11	s	METAL, CHIP 68 0.5% 1/10W
R77	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R78	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R79	1-208-785-11	s	CHIP, METAL 1.3K 0.50% 1/10W
R80	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R81	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R82	1-216-081-00	s	METAL, CHIP 22K 5% 1/10W
R83	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R84	1-216-039-00	s	METAL, CHIP 390 5% 1/10W
R85	1-216-039-00	s	METAL, CHIP 390 5% 1/10W
R86	1-216-298-00	s	METAL, CHIP 2.2 5% 1/10W
R87	1-216-298-00	s	METAL, CHIP 2.2 5% 1/10W
R88	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R89	1-216-029-00	s	METAL, CHIP 150 5% 1/10W
R90	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R91	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R92	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R93	1-208-775-11	s	CHIP, METAL 510 0.50% 1/10W
R94	1-208-775-11	s	CHIP, METAL 510 0.50% 1/10W
R95	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R97	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R98	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R99	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R100	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R101	1-216-091-00	s	METAL, CHIP 56K 5% 1/10W
R102	1-216-081-00	s	METAL, CHIP 22K 5% 1/10W
R103	1-216-059-00	s	METAL, CHIP 2.7K 5% 1/10W
R104	1-216-047-91	s	METAL 820 5% 1/10W
R105	1-208-789-11	s	CHIP, METAL 2K 0.50% 1/10W
R106	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R109	1-216-623-11	s	METAL, CHIP 68 0.5% 1/10W
R110	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R111	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R112	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R113	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R114	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R115	1-216-059-00	s	METAL, CHIP 2.7K 5% 1/10W
R116	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W

(IF-454 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R117	1-216-039-00	s	METAL, CHIP 390 5% 1/10W
R118	1-216-039-00	s	METAL, CHIP 390 5% 1/10W
R119	1-216-298-00	s	METAL, CHIP 2.2 5% 1/10W
R120	1-216-298-00	s	METAL, CHIP 2.2 5% 1/10W
R121	1-216-029-00	s	METAL, CHIP 150 5% 1/10W
R122	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R123	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R124	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R125	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R126	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R127	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R128	1-208-775-11	s	CHIP, METAL 510 0.50% 1/10W
R129	1-208-775-11	s	CHIP, METAL 510 0.50% 1/10W
R130	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R132	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R133	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R134	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R135	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R136	1-216-091-00	s	METAL, CHIP 56K 5% 1/10W
R137	1-216-081-00	s	METAL, CHIP 22K 5% 1/10W
R138	1-216-059-00	s	METAL, CHIP 2.7K 5% 1/10W
R139	1-208-789-11	s	CHIP, METAL 2K 0.50% 1/10W
R140	1-216-047-91	s	METAL 820 5% 1/10W
R141	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R144	1-216-623-11	s	METAL, CHIP 68 0.5% 1/10W
R145	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R146	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R147	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R148	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R149	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R150	1-216-059-00	s	METAL, CHIP 2.7K 5% 1/10W
R151	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R152	1-216-039-00	s	METAL, CHIP 390 5% 1/10W
R153	1-216-039-00	s	METAL, CHIP 390 5% 1/10W
R154	1-216-298-00	s	METAL, CHIP 2.2 5% 1/10W
R155	1-216-298-00	s	METAL, CHIP 2.2 5% 1/10W
R156	1-216-029-00	s	METAL, CHIP 150 5% 1/10W
R157	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R158	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R159	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R160	1-216-095-00	s	METAL, CHIP 82K 5% 1/10W
R161	1-216-081-00	s	METAL, CHIP 22K 5% 1/10W
R162	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R163	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R164	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R165	1-216-077-00	s	METAL, CHIP 15K 5% 1/10W
R166	1-216-043-91	s	METAL, CHIP 560 5% 1/10W
R167	1-216-043-91	s	METAL, CHIP 560 5% 1/10W
R168	1-216-051-00	s	METAL, CHIP 1.2K 5% 1/10W
R169	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R170	1-216-077-00	s	METAL, CHIP 15K 5% 1/10W
R171	1-216-045-00	s	METAL, CHIP 680 5% 1/10W
R172	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R173	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R174	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R175	1-216-059-00	s	METAL, CHIP 2.7K 5% 1/10W
R183	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R184	1-208-789-11	s	CHIP, METAL 2K 0.50% 1/10W
R185	1-216-663-11	s	METAL, CHIP 3.3K 0.5% 1/10W

Please see page 13-40 for the part numbers of
resistor that is not the parts list.

(IF-454 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R186	1-216-655-11	s	METAL, CHIP 1.5K 0.5% 1/10W
R188	1-208-789-11	s	CHIP, METAL 2K 0.50% 1/10W
R189	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R190	1-216-655-11	s	METAL, CHIP 1.5K 0.5% 1/10W
R192	1-208-789-11	s	CHIP, METAL 2K 0.50% 1/10W
R193	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R194	1-216-664-11	s	METAL, CHIP 3.6K 0.5% 1/10W
R195	1-208-789-11	s	CHIP, METAL 2K 0.50% 1/10W
R197	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R198	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R199	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R202	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R203	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R204	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R205	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R206	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R207	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R209	1-208-806-11	s	CHIP, METAL 10K 0.50% 1/10W
R210	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R212	1-208-806-11	s	CHIP, METAL 10K 0.50% 1/10W
R213	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R214	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R216	1-208-806-11	s	CHIP, METAL 10K 0.50% 1/10W
R217	1-208-806-11	s	CHIP, METAL 10K 0.50% 1/10W
RV1	1-238-089-11	s	RES, ADJ, 4.7K
RV2	1-238-089-11	s	RES, ADJ, 4.7K
RV3	1-238-089-11	s	RES, ADJ, 4.7K
RV4	1-238-087-11	s	RES, ADJ, 1K
RV5	1-238-089-11	s	RES, ADJ, 4.7K
RV6	1-238-089-11	s	RES, ADJ, 4.7K
RV7	1-238-089-11	s	RES, ADJ, 4.7K
RV8	1-238-089-11	s	RES, ADJ, 4.7K
RV9	1-238-089-11	s	RES, ADJ, 4.7K
RV10	1-238-089-11	s	RES, ADJ, 4.7K
RV11	1-238-089-11	s	RES, ADJ, 4.7K
S1	1-572-272-11	s	SWITCH, SLIDE

KY-285 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8275-589-A	o	MOUNTED CIRCUIT BOARD, KY-285
CN1	1-566-526-11	s	CONNECTOR, 10P
D1	8-719-989-97	s	DIODE CL-150SD-CD
D2	8-719-989-97	s	DIODE CL-150SD-CD
D3	8-719-989-97	s	DIODE CL-150SD-CD
R1	1-216-045-00	s	METAL, CHIP 680 5% 1/10W
R2	1-216-045-00	s	METAL, CHIP 680 5% 1/10W
R3	1-216-045-00	s	METAL, CHIP 680 5% 1/10W
S1	1-570-909-11	s	SWITCH, PUSH
S2	1-570-909-11	s	SWITCH, PUSH
S3	1-570-909-11	s	SWITCH, PUSH
S4	1-570-909-11	s	SWITCH, PUSH
S5	1-570-909-11	s	SWITCH, PUSH

LED-214 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-651-988-11	o	PRINTED CIRCUIT BOAR, LED-214
D1	8-719-902-27	s	LED EBR3402S, RED

Please see page 13-40 for the part numbers of resistor that is not the parts list.

MB-506 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8275-590-A	o	MOUNTED CIRCUIT BOARD, MB-506
1pc	2-279-715-11	s	RIVET, NYLON
C1	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C2	1-126-205-11	s	ELECT 47uF 20% 6.3V
C3	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C4	1-126-205-11	s	ELECT 47uF 20% 6.3V
C21	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C22	1-126-204-11	s	ELECT 47uF 20% 16V
C23	1-126-204-11	s	ELECT 47uF 20% 16V
C24	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C25	1-126-204-11	s	ELECT 47uF 20% 16V
C31	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C32	1-126-952-11	s	ELECT 1000uF 20% 35V
CN11	1-765-136-11	s	CABLE, FLAT 24P
CN12	1-765-136-11	s	CABLE, FLAT 24P
CN13	1-506-472-11	s	CONNECTOR, 7P, MALE
CN14	1-765-135-11	s	CABLE, FLAT 24P
CN15	1-765-132-11	s	CABLE, FLAT 10P
CN16	1-765-134-11	s	CABLE, FLAT 24P
CN17	1-765-138-11	s	CABLE, FLAT 30P
CN18	1-765-137-11	s	CABLE, FLAT 26P
CN19	1-765-139-11	s	CABLE, FLAT 30P
CN20	1-765-139-11	s	CABLE, FLAT 30P
CN21	1-506-491-11	s	CONNECTOR, 12P, MALE
CN22	1-506-473-11	o	CONNECTOR, 8P, MALE
CN23	1-560-356-00	o	CONNECTOR POST HEADER, ILG (2P) MAL
CN24	1-506-703-11	o	CONNECTOR POST HEADER, ILG (4P)
CN25	1-506-702-11	o	CONNECTOR, ILG 3P,
CN26	1-690-107-11	o	CONNECTOR, 12P FEMALE
CN27	1-690-107-11	o	CONNECTOR, 12P FEMALE
CN28	1-566-521-11	s	CONNECTOR, 5P
CN29	1-560-368-00	o	CONNECTOR, POST HEADER ILG 6P
D31	8-719-200-02	s	DIODE 10E-2
IC1	8-759-300-71	s	IC MC14053BF
PS31	⚠ 1-533-348-11	s	RINK, CHIP IC
PS32	⚠ 1-533-348-11	s	RINK, CHIP IC
Q1	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q2	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q21	8-729-106-60	s	TRANSISTOR 2SB1115A
Q22	8-729-901-01	s	TRANSISTOR DTC144EK
Q23	8-729-106-60	s	TRANSISTOR 2SB1115A
Q24	8-729-216-22	s	TRANSISTOR 2SA1162
R1	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R2	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R3	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R4	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R5	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R6	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R7	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R8	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R9	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R10	1-216-624-11	s	METAL, CHIP 75 0.5% 1/10W
R11	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R12	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R13	1-216-081-00	s	METAL, CHIP 22K 5% 1/10W
R21	1-216-045-00	s	METAL, CHIP 680 5% 1/10W
R22	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R23	1-216-089-91	s	METAL 47K 5% 1/10W
R24	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R25	1-216-045-00	s	METAL, CHIP 680 5% 1/10W
R26	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R27	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R31	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R32	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R33	1-216-619-11	s	METAL, CHIP 47 0.5% 1/10W

Please see page 13-40 for the part numbers of
resistor that is not the parts list.

MB-530(N)/530(P) BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8275-585-A	o	MOUNTED CIRCUIT BOARD, MB-530(N) [for J, UC]
1pc	A-8275-691-A	o	MOUNTED CIRCUIT BOARD, MB-530 (P) [for EK]
2pcs	1-565-977-11	s	CONTACT, FEMALE AWG 28-32
1pc	1-565-978-11	o	HOUSING, 6P
1pc	1-569-619-11	o	HOUSING, CONNECTOR 4P
C1	1-104-823-11	s	TANTALUM, CHIP 47uF 20% 16V [for EK]
C2	1-135-214-21	s	TANTAL 4.7uF 20% 20V [for EK]
C3	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C4	1-107-686-11	s	CHIP, TANTALUM 4.7uF 20% 16V
C9	1-107-686-11	s	CHIP, TANTALUM 4.7uF 20% 16V
C10	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C13	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C14	1-135-076-21	s	TANTALUM, CHIP 1uF 10% 35V
C15	1-163-227-11	s	CERAMIC, CHIP 10PF 5% 50V
C16	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V
C19	1-104-823-11	s	TANTALUM, CHIP 47uF 20% 16V
C21	1-107-686-11	s	CHIP, TANTALUM 4.7uF 20% 16V
C24	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C25	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C26	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C27	1-163-275-11	s	CERAMIC 0.001uF 5% 50V
C28	1-104-914-11	s	TANTAL 22uF 20% 16V
C29	1-104-666-11	s	ELECT 220uF 20% 25V
C30	1-135-164-21	s	TANTALUM, CHIP 22uF 20% 10V
C31	1-135-076-21	s	TANTALUM, CHIP 1uF 10% 35V
C32	1-135-076-21	s	TANTALUM, CHIP 1uF 10% 35V
C33	1-135-076-21	s	TANTALUM, CHIP 1uF 10% 35V
C34	1-135-076-21	s	TANTALUM, CHIP 1uF 10% 35V
C35	1-135-076-21	s	TANTALUM, CHIP 1uF 10% 35V
C36	1-126-397-11	s	ELECT, CHIP 33uF 20% 25V
C37	1-126-397-11	s	ELECT, CHIP 33uF 20% 25V
C38	1-126-916-11	s	ELECT 1000uF 20% 6.3
C40	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V
C41	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V
C42	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V
C43	1-163-235-11	s	CERAMIC, CHIP 22PF 5% 50V [for J, UC]
C44	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V [for J, UC]
C45	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V
C46	1-126-942-61	s	ELECT 1000uF 20% 25V
C47	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V
C48	1-164-232-11	s	CERAMIC, CHIP 0.01uF 10% 50V
C50	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C51	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C52	1-104-914-11	s	TANTAL 22uF 20% 16V
C53	1-104-914-11	s	TANTAL 22uF 20% 16V
C54	1-104-914-11	s	TANTAL 22uF 20% 16V
C55	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C56	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C60	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C62	1-135-076-21	s	TANTALUM, CHIP 1uF 10% 35V
C63	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C64	1-135-070-00	s	TANTALUM, CHIP 0.1uF 10% 35V
C65	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C66	1-104-913-11	s	TANTALUM, CHIP 10uF 20% 16V
C67	1-107-690-11	s	TANTALUM 6.8uF 20% 35V

(MB-530(N)/530(P) BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C68	1-104-913-11	s	TANTALUM, CHIP 10uF 20% 16V
C69	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V
C70	1-107-686-11	s	CHIP, TANTALUM 4.7uF 20% 16V
C71	1-135-070-00	s	TANTALUM, CHIP 0.1uF 10% 35V
C72	1-107-686-11	s	CHIP, TANTALUM 4.7uF 20% 16V
C73	1-104-913-11	s	TANTALUM, CHIP 10uF 20% 16V
C74	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C75	1-164-346-11	s	CERAMIC 1uF 16V
C76	1-126-940-11	s	ELECT 330uF 20% 25V
CN1	1-566-760-11	s	PIN, CONNECTOR (PC BOARD) 5P
CN2	1-566-767-11	o	PIN, CONNECTOR 12P
CN3	1-566-767-11	o	PIN, CONNECTOR 12P
CN4	1-566-767-11	o	PIN, CONNECTOR 12P
CN5	1-566-760-11	s	PIN, CONNECTOR (PC BOARD) 5P
CN6	1-566-760-11	s	PIN, CONNECTOR (PC BOARD) 5P
CN7	1-506-481-11	s	CONNECTOR, 2P, MALE
CN8	1-506-481-11	s	CONNECTOR, 2P, MALE
CN9	1-506-481-11	s	CONNECTOR, 2P, MALE
CN11	1-691-855-11	s	CONNECTOR, BOARD TO BOARD 60P
CN12	1-691-855-11	s	CONNECTOR, BOARD TO BOARD 60P
CN13	1-691-855-11	s	CONNECTOR, BOARD TO BOARD 60P
CN14	1-691-855-11	s	CONNECTOR, BOARD TO BOARD 60P
CN15	1-691-855-11	s	CONNECTOR, BOARD TO BOARD 60P
CN18	1-566-759-11	o	PIN, CONNECTOR (PC BOARD) 4P
CN19	1-506-481-11	s	CONNECTOR, 2P, MALE
CN20	1-566-199-11	o	PIN, CONNECTOR (PC BOARD) 6P
CN21	1-506-487-11	s	CONNECTOR, 8P, MALE
CN22	1-506-485-11	s	CONNECTOR, 6P, MALE
CN24	1-766-183-11	o	HOUSING, 24P
CN25	1-766-183-11	o	HOUSING, 24P
CN26	1-564-009-11	o	PIN, CONNECTOR 10P
CN27	1-564-011-11	o	CONNECTOR, 12P, MALE
CN28	1-560-368-00	o	CONNECTOR, POST HEADER ILG 6P
CP1	1-760-278-11	s	OSCILLATOR, CRYSTAL (VCO TYPE) [for J, UC]
CP1	1-760-276-11	s	CRYSTAL 28.375MHz [for EK]
D1	8-719-104-34	s	DIODE 1S2836
D2	8-719-104-34	s	DIODE 1S2836
D3	8-719-104-34	s	DIODE 1S2836
D4	8-719-800-76	s	DIODE 1SS226
D5	8-719-104-34	s	DIODE 1S2836
D6	8-719-104-34	s	DIODE 1S2836
D7	8-719-104-34	s	DIODE 1S2836
D8	8-719-105-91	s	DIODE RD5.6M-B2
D9	8-719-104-34	s	DIODE 1S2836
D10	8-719-104-34	s	DIODE 1S2836
D11	8-719-021-31	s	DIODE UZM5.1B
D12	8-719-157-23	s	DIODE RD4.7M-B
FB1	1-543-775-11	s	FILTER, EMI
FB2	1-543-775-11	s	FILTER, EMI
FB3	1-543-775-11	s	FILTER, EMI
FB4	1-543-775-11	s	FILTER, EMI
IC1	8-759-987-82	s	IC 74AC00SJ [for J, UC]
IC1	8-759-081-42	s	IC TC74VHC00F [for EK]
IC2	8-759-925-90	s	IC SN74HC74ANS
IC3	8-752-351-03	s	IC CXD1256AR
IC6	8-759-925-90	s	IC SN74HC74ANS

Please see page 13-40 for the part numbers of resistor that is not the parts list.

(MB-530(N)/530(P) BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
IC7	8-752-351-03	s	IC CXD1256AR
IC10	8-752-327-46	s	IC CXD1250M
IC11	8-752-327-46	s	IC CXD1250M
IC12	8-752-327-46	s	IC CXD1250M
IC13	8-759-985-17	s	IC 74AC04SJ [for J, UC]
IC13	8-759-081-46	s	IC TC74VHCU04F [for EK]
IC14	8-759-906-54	s	IC TL064CNS
IC15	8-759-242-72	s	IC TC7W00F
IC18	8-759-095-59	s	IC M5237ML-TP1
IC19	8-759-906-54	s	IC TL064CNS
L1	1-410-389-31	s	INDUCTOR CHIP 47uH
L3	1-412-282-41	s	INDUCTOR 470uH
L4	1-412-282-41	s	INDUCTOR 470uH
L5	1-410-369-11	s	INDUCTOR CHIP 1UH
L6	1-410-369-11	s	INDUCTOR CHIP 1UH
L7	1-410-369-11	s	INDUCTOR CHIP 1UH
L10	1-410-369-11	s	INDUCTOR CHIP 1UH
L11	1-410-369-11	s	INDUCTOR CHIP 1UH
L12	1-410-369-11	s	INDUCTOR CHIP 1UH
L13	1-410-369-11	s	INDUCTOR CHIP 1UH
Q1	8-729-109-44	s	TRANSISTOR 2SK94
Q4	8-729-216-22	s	TRANSISTOR 2SA1162
Q5	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q6	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q7	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q8	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q9	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q10	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q11	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q12	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q13	8-729-216-22	s	TRANSISTOR 2SA1162
Q14	8-729-109-44	s	TRANSISTOR 2SK94
Q15	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q16	8-729-800-37	s	TRANSISTOR 2SD1048-X7
Q17	8-729-807-87	s	TRANSISTOR 2SB1295-UL6
Q18	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q19	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q20	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q21	8-729-101-07	s	TRANSISTOR 2SB798
Q22	8-729-101-07	s	TRANSISTOR 2SB798
Q23	8-729-807-51	s	TRANSISTOR 2SD1623-S
Q24	8-729-101-07	s	TRANSISTOR 2SB798
Q25	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
R1	1-216-067-00	s	METAL, CHIP 5.6K 5% 1/10W [for EK]
R2	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W [for EK]
R3	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R4	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R5	1-216-295-00	s	METAL, CHIP 0 5% 1/10W
R6	1-216-295-00	s	METAL, CHIP 0 5% 1/10W [for J, UC]
R6	1-216-025-00	s	METAL, CHIP 100 5% 1/10W [for EK]
R7	1-216-295-00	s	METAL, CHIP 0 5% 1/10W
R11	1-216-121-91	s	METAL 1M 5% 1/10W
R12	1-216-121-91	s	METAL 1M 5% 1/10W
R13	1-216-033-00	s	METAL, CHIP 220 5% 1/10W
R14	1-216-295-00	s	METAL, CHIP 0 5% 1/10W [for J, UC]
R14	1-216-025-00	s	METAL, CHIP 100 5% 1/10W [for EK]
R15	1-216-295-00	s	METAL, CHIP 0 5% 1/10W

(MB-530(N)/530(P) BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R19	1-216-121-91	s	METAL 1M 5% 1/10W
R20	1-216-121-91	s	METAL 1M 5% 1/10W
R21	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R22	1-216-077-00	s	METAL, CHIP 15K 5% 1/10W
R23	1-216-077-00	s	METAL, CHIP 15K 5% 1/10W
R24	1-216-077-00	s	METAL, CHIP 15K 5% 1/10W
R25	1-216-077-00	s	METAL, CHIP 15K 5% 1/10W
R26	1-216-077-00	s	METAL, CHIP 15K 5% 1/10W
R27	1-216-077-00	s	METAL, CHIP 15K 5% 1/10W
R28	1-216-121-91	s	METAL 1M 5% 1/10W
R29	1-216-121-91	s	METAL 1M 5% 1/10W
R30	1-216-121-91	s	METAL 1M 5% 1/10W
R33	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R34	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R35	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R36	1-216-043-00	s	METAL, CHIP 560 5% 1/10W
R37	1-216-081-00	s	METAL, CHIP 22K 5% 1/10W
R38	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R39	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R40	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R41	1-216-089-91	s	METAL 47K 5% 1/10W
R42	1-216-061-00	s	METAL, CHIP 3.3K 5% 1/10W
R43	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R44	1-216-021-00	s	METAL, CHIP 68 5% 1/10W
R45	1-216-021-00	s	METAL, CHIP 68 5% 1/10W
R46	1-216-021-00	s	METAL, CHIP 68 5% 1/10W
R47	1-216-021-00	s	METAL, CHIP 68 5% 1/10W
R49	1-216-295-00	s	METAL, CHIP 0 5% 1/10W [for EK]
R50	1-216-295-00	s	METAL, CHIP 0 5% 1/10W [for J, UC]
R52	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R53	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R54	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R55	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R56	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R57	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R58	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R59	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R60	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R61	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R62	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R64	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R65	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R75	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R76	1-216-033-00	s	METAL, CHIP 220 5% 1/10W
R77	1-208-812-11	s	METAL CHIP 18K 0.50% 1/10W
R78	1-216-661-11	s	METAL, CHIP 2.7K 0.5% 1/10W
R79	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R80	1-216-685-11	s	METAL, CHIP 27K 0.5% 1/10W
R81	1-216-688-11	s	METAL, CHIP 36K 0.5% 1/10W
R82	1-216-688-11	s	METAL, CHIP 36K 0.5% 1/10W
R83	1-216-688-11	s	METAL, CHIP 36K 0.5% 1/10W
R84	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R85	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R86	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R87	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R88	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
R89	1-216-065-00	s	METAL, CHIP 4.7K 5% 1/10W
RV1	1-237-037-11	s	RES, ADJ, METAL 20K

Please see page 13-40 for the part numbers of resistor that is not the parts list.

(MB-530(N)/530(P) BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
RV2	1-237-037-11	s	RES, ADJ, METAL 20K
RV3	1-237-037-11	s	RES, ADJ, METAL 20K
RV4	1-237-038-11	s	RES, ADJ, METAL 50K
RV5	1-237-038-11	s	RES, ADJ, METAL 50K
RV6	1-237-038-11	s	RES, ADJ, METAL 50K
RV7	1-237-033-11	s	RES, ADJ, METAL 1K
W2	1-953-147-12	o	HARNESS, SUB (SW-1)
W3	1-953-148-12	o	HARNESS, SUB (SW-2)

PA-137C/137CP BOARD

Ref. No. or Q'ty	Part No.	SP	Description
	1-562-735-11	u	HOUSING, CONNECTOR 2P
1pc	1-564-832-11	o	CONTACT
2pcs	1-565-977-11	s	CONTACT, FEMALE AWG 28-32
1pc	1-569-191-11	o	CONTACT, AWG22-26
1pc	1-569-193-11	s	CONTACT, AWG24-30
1pc	1-569-195-11	o	HOUSING, CONNECTOR 2P
C1	1-164-156-11	s	CERAMIC 0.1uF 25V
C2	1-162-964-11	s	CERAMIC 0.001uF 10% 50V
C3	1-135-154-21	s	TANTALUM, CHIP 3.3uF 20% 20V
C4	1-135-164-21	s	TANTALUM, CHIP 22uF 20% 10V
C5	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C6	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C7	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C8	1-135-180-21	s	TANTALUM, CHIP 3.3uF 20% 6.3V
C9	1-135-092-21	s	TANTALUM, CHIP 3.3uF 10% 16V
C10	1-164-156-11	s	CERAMIC 0.1uF 25V
C11	1-135-091-91	s	CHIP, TANTALUM 1uF 20% 16V
C12	1-126-925-11	s	ELECT 470uF 20% 10V
IC2	8-759-271-86	s	IC TC7SH04FU
IC3	8-759-271-86	s	IC TC7SH04FU
IC4	8-759-052-66	s	IC AN2011S
L1	1-410-658-31	s	INDUCTOR CHIP 220uH
Q1	8-729-117-72	s	TRANSISTOR 2SC4178
Q2	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
R12	1-218-704-11	s	METAL 3.3K 0.50% 1/16W
R13	1-218-710-11	s	METAL, CHIP 5.6K 0.50% 1/16W

Please see page 13-40 for the part numbers of resistor that is not the parts list.

PR-208 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8275-711-A	o	MOUNTED CIRCUIT BOARD, PR-208
2pcs	7-627-554-27	s	SCREW, PRECITION +P 2X6 TYPE1
C1	1-124-778-00	s	ELECT 22uF 20% 6.3V
C2	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C3	1-124-778-00	s	ELECT 22uF 20% 6.3V
C4	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C5	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C6	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C7	1-124-779-00	s	ELECT 10uF 20% 16V
C8	1-124-779-00	s	ELECT 10uF 20% 16V
C9	1-126-205-11	s	ELECT 47uF 20% 6.3V
C10	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C11	1-124-778-00	s	ELECT 22uF 20% 6.3V
C12	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C13	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C15	1-164-156-11	s	CERAMIC 0.1uF 25V
C16	1-124-779-00	s	ELECT 10uF 20% 16V
C17	1-124-779-00	s	ELECT 10uF 20% 16V
C18	1-124-778-00	s	ELECT 22uF 20% 6.3V
C19	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C22	1-124-779-00	s	ELECT 10uF 20% 16V
C23	1-124-779-00	s	ELECT 10uF 20% 16V
C24	1-126-601-11	s	ELECT 2.2uF 20% 50V
C25	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C26	1-135-179-21	s	TANTAL 2.2uF 10% 16V
C27	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C28	1-164-156-11	s	CERAMIC 0.1uF 25V
C29	1-124-778-00	s	ELECT 22uF 20% 6.3V
C30	1-124-779-00	s	ELECT 10uF 20% 16V
C31	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C32	1-135-179-21	s	TANTAL 2.2uF 10% 16V
C33	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C34	1-164-156-11	s	CERAMIC 0.1uF 25V
C35	1-124-778-00	s	ELECT 22uF 20% 6.3V
C36	1-128-394-11	s	ELECT 220uF 20% 10V
C37	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C38	1-135-179-21	s	TANTAL 2.2uF 10% 16V
C39	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C40	1-164-156-11	s	CERAMIC 0.1uF 25V
C41	1-124-778-00	s	ELECT 22uF 20% 6.3V
C42	1-124-779-00	s	ELECT 10uF 20% 16V
C47	1-135-211-11	s	TANTALUM, CHIP 6.8uF 20% 6.3V
C48	1-135-211-11	s	TANTALUM, CHIP 6.8uF 20% 6.3V
C49	1-135-072-21	s	TANTALUM, CHIP 0.22uF 10% 35V
C50	1-135-211-11	s	TANTALUM, CHIP 6.8uF 20% 6.3V
C51	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C52	1-135-072-21	s	TANTALUM, CHIP 0.22uF 10% 35V
C53	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C54	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C55	1-135-072-21	s	TANTALUM, CHIP 0.22uF 10% 35V
C56	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C57	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C58	1-135-145-11	s	TANTALUM, CHIP 0.47uF 10% 35V
C59	1-135-211-11	s	TANTALUM, CHIP 6.8uF 20% 6.3V
C60	1-135-211-11	s	TANTALUM, CHIP 6.8uF 20% 6.3V
C61	1-135-211-11	s	TANTALUM, CHIP 6.8uF 20% 6.3V
C62	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C63	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V

(PR-208 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C64	1-135-145-11	s	TANTALUM, CHIP 0.47uF 10% 35V
C65	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C66	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C67	1-135-145-11	s	TANTALUM, CHIP 0.47uF 10% 35V
C68	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C69	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C70	1-135-181-21	s	TANTALUM, CHIP 4.7uF 10% 6.3V
C71	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C72	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C73	1-164-361-11	s	CERAMIC 0.047uF 16V
C74	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C75	1-135-211-11	s	TANTALUM, CHIP 6.8uF 20% 6.3V
C76	1-124-779-00	s	ELECT 10uF 20% 16V
C79	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C80	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C81	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C82	1-124-779-00	s	ELECT 10uF 20% 16V
C85	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C86	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C87	1-124-779-00	s	ELECT 10uF 20% 16V
C90	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C91	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C103	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C104	1-164-156-11	s	CERAMIC 0.1uF 25V
C105	1-126-204-11	s	ELECT 47uF 20% 16V
C106	1-135-217-21	s	TANTAL 15uF 20% 6.3
C107	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C108	1-126-204-11	s	ELECT 47uF 20% 16V
C109	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C110	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C111	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C112	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C113	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C114	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C115	1-124-778-00	s	ELECT 22uF 20% 6.3V
C116	1-124-778-00	s	ELECT 22uF 20% 6.3V
C117	1-124-778-00	s	ELECT 22uF 20% 6.3V
C118	1-128-394-11	s	ELECT 220uF 20% 10V
C119	1-124-779-00	s	ELECT 10uF 20% 16V
C120	1-124-779-00	s	ELECT 10uF 20% 16V
C121	1-124-779-00	s	ELECT 10uF 20% 16V
C122	1-128-394-11	s	ELECT 220uF 20% 10V
C130	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C131	1-135-161-21	s	TANTALUM, CHIP 22uF 10% 10V
C132	1-124-779-00	s	ELECT 10uF 20% 16V
C133	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C134	1-124-778-00	s	ELECT 22uF 20% 6.3V
C135	1-135-072-21	s	TANTALUM, CHIP 0.22uF 10% 35V
C136	1-135-072-21	s	TANTALUM, CHIP 0.22uF 10% 35V
C137	1-135-072-21	s	TANTALUM, CHIP 0.22uF 10% 35V
C138	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C139	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C140	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C141	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C142	1-135-145-11	s	TANTALUM, CHIP 0.47uF 10% 35V
C143	1-135-145-11	s	TANTALUM, CHIP 0.47uF 10% 35V
C144	1-135-145-11	s	TANTALUM, CHIP 0.47uF 10% 35V
CN1	1-691-856-11	s	CONNECTOR, BOARD TO BOARD 60P

Please see page 13-40 for the part numbers of resistor that is not the parts list.

(PR-208 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
D1	8-719-820-05	s	DIODE 1SS181
D2	8-719-820-05	s	DIODE 1SS181
D3	8-719-820-05	s	DIODE 1SS181
D4	8-719-404-35	s	DIODE MA141WK
D5	8-719-404-35	s	DIODE MA141WK
D6	8-719-800-76	s	DIODE 1SS226
D8	8-719-800-76	s	DIODE 1SS226
D10	8-719-800-76	s	DIODE 1SS226
IC1	8-759-906-53	s	IC TL062CPS
IC2	8-759-906-53	s	IC TL062CPS
IC3	8-759-906-53	s	IC TL062CPS
IC4	8-759-906-53	s	IC TL062CPS
IC5	8-759-700-95	s	IC NJM1496M
IC6	8-759-700-95	s	IC NJM1496M
IC7	8-759-700-95	s	IC NJM1496M
IC9	8-759-059-00	s	IC UPC2372AGK
IC10	8-759-906-54	s	IC TL064CNS
IC12	8-759-209-69	s	IC TC4S11F
IC13	8-759-635-27	s	IC M62352GP
IC14	8-759-906-54	s	IC TL064CNS
L1	1-410-385-11	s	INDUCTOR, CHIP 22uH
L2	1-410-385-11	s	INDUCTOR, CHIP 22uH
L3	1-410-385-11	s	INDUCTOR, CHIP 22uH
L4	1-410-385-11	s	INDUCTOR, CHIP 22uH
L5	1-410-385-11	s	INDUCTOR, CHIP 22uH
Q1	8-729-905-23	s	TRANSISTOR 2SA1576R
Q2	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4	8-729-905-23	s	TRANSISTOR 2SA1576R
Q5	8-729-142-90	s	TRANSISTOR 2SK853-K5
Q6	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q7	8-729-905-23	s	TRANSISTOR 2SA1576R
Q8	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q9	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q10	8-729-905-23	s	TRANSISTOR 2SA1576R
Q11	8-729-142-90	s	TRANSISTOR 2SK853-K5
Q12	8-729-905-23	s	TRANSISTOR 2SA1576R
Q13	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q14	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q15	8-729-905-23	s	TRANSISTOR 2SA1576R
Q16	8-729-142-90	s	TRANSISTOR 2SK853-K5
Q17	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q18	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q19	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q20	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q21	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q22	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q23	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q24	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q25	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q26	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q27	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q28	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q29	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q30	8-729-905-23	s	TRANSISTOR 2SA1576R
Q31	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q32	8-729-142-90	s	TRANSISTOR 2SK853-K5

(PR-208 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q33	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q34	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q35	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q38	8-729-142-90	s	TRANSISTOR 2SK853-K5
Q39	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q40	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q41	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q42	8-729-905-23	s	TRANSISTOR 2SA1576R
Q43	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q44	8-729-142-90	s	TRANSISTOR 2SK853-K5
Q45	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q46	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q47	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q51	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q52	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q59	8-729-117-72	s	TRANSISTOR 2SC4178
Q60	8-729-905-23	s	TRANSISTOR 2SA1576R
Q61	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q62	8-729-905-23	s	TRANSISTOR 2SA1576R
Q63	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q64	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q65	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q66	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q67	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q68	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q69	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q70	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q71	8-729-905-23	s	TRANSISTOR 2SA1576R
Q72	8-729-905-23	s	TRANSISTOR 2SA1576R
Q73	8-729-905-23	s	TRANSISTOR 2SA1576R
R18	1-218-868-11	s	METAL CHIP 7.5K 0.50% 1/16W
R19	1-218-846-11	s	METAL CHIP 910 0.50% 1/16W
R33	1-218-714-11	s	METAL 8.2K 0.50% 1/16W
R34	1-218-732-11	s	METAL 47K 0.50% 1/16W
R36	1-218-684-11	s	METAL 470 0.50% 1/16W
R39	1-218-864-11	s	METAL CHIP 5.1K 0.50% 1/16W
R40	1-218-684-11	s	METAL 470 0.50% 1/16W
R42	1-218-724-11	s	METAL 22K 0.50% 1/16W
R43	1-218-722-11	s	METAL, CHIP 18K 0.50% 1/16W
R44	1-218-848-11	s	METAL CHIP 1.1K 0.50% 1/16W
R46	1-218-698-11	s	METAL 1.8K 0.50% 1/16W
R50	1-218-722-11	s	METAL, CHIP 18K 0.50% 1/16W
R51	1-218-724-11	s	METAL 22K 0.50% 1/16W
R54	1-218-684-11	s	METAL 470 0.50% 1/16W
R57	1-218-684-11	s	METAL 470 0.50% 1/16W
R59	1-218-724-11	s	METAL 22K 0.50% 1/16W
R60	1-218-722-11	s	METAL, CHIP 18K 0.50% 1/16W
R61	1-218-848-11	s	METAL CHIP 1.1K 0.50% 1/16W
R63	1-218-698-11	s	METAL 1.8K 0.50% 1/16W
R67	1-218-722-11	s	METAL, CHIP 18K 0.50% 1/16W
R68	1-218-724-11	s	METAL 22K 0.50% 1/16W
R71	1-218-684-11	s	METAL 470 0.50% 1/16W
R74	1-218-864-11	s	METAL CHIP 5.1K 0.50% 1/16W
R75	1-218-684-11	s	METAL 470 0.50% 1/16W
R77	1-218-724-11	s	METAL 22K 0.50% 1/16W
R78	1-218-722-11	s	METAL, CHIP 18K 0.50% 1/16W
R79	1-218-848-11	s	METAL CHIP 1.1K 0.50% 1/16W
R81	1-218-698-11	s	METAL 1.8K 0.50% 1/16W
R85	1-218-722-11	s	METAL, CHIP 18K 0.50% 1/16W

Please see page 13-40 for the part numbers of resistor that is not the parts list.

(PR-208 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R86	1-218-724-11	s	METAL 22K 0.50% 1/16W
R113	1-218-724-11	s	METAL 22K 0.50% 1/16W
R114	1-218-714-11	s	METAL 8.2K 0.50% 1/16W
R117	1-218-699-11	s	METAL, CHIP 2K 0.50% 1/16W
R120	1-218-700-11	s	METAL 2.2K 0.50% 1/16W
R132	1-218-700-11	s	METAL 2.2K 0.50% 1/16W
R134	1-218-699-11	s	METAL, CHIP 2K 0.50% 1/16W
R143	1-218-699-11	s	METAL, CHIP 2K 0.50% 1/16W
R146	1-218-700-11	s	METAL 2.2K 0.50% 1/16W
R185	1-218-732-11	s	METAL 47K 0.50% 1/16W
R186	1-218-732-11	s	METAL 47K 0.50% 1/16W
R188	1-218-732-11	s	METAL 47K 0.50% 1/16W
R190	1-218-732-11	s	METAL 47K 0.50% 1/16W
R191	1-218-732-11	s	METAL 47K 0.50% 1/16W
R199	1-218-724-11	s	METAL 22K 0.50% 1/16W
R200	1-218-724-11	s	METAL 22K 0.50% 1/16W
R201	1-218-732-11	s	METAL 47K 0.50% 1/16W
R203	1-218-837-11	s	METAL, CHIP 390 0.50% 1/16W
R204	1-218-688-11	s	METAL 680 0.50% 1/16W
R224	1-218-899-11	s	CHIP, METAL 150K 0.50% 1/16W
R253	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R254	1-216-660-11	s	METAL, CHIP 2.4K 0.5% 1/10W
R255	1-216-677-11	s	METAL, CHIP 12K 0.5% 1/10W
R257	1-218-679-91	s	METAL 300 0.50% 1/16W
R258	1-218-677-11	s	METAL 240 0.50% 1/16W
R260	1-218-710-11	s	METAL, CHIP 5.6K 0.50% 1/16W
R261	1-218-700-11	s	METAL 2.2K 0.50% 1/16W
R266	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R267	1-218-700-11	s	METAL 2.2K 0.50% 1/16W
R271	1-208-800-11	s	CHIP, METAL 5.6K 0.50% 1/10W
R272	1-216-661-11	s	METAL, CHIP 2.7K 0.5% 1/10W
R273	1-218-699-11	s	METAL, CHIP 2K 0.50% 1/16W
R274	1-218-700-11	s	METAL 2.2K 0.50% 1/16W
R278	1-218-700-11	s	METAL 2.2K 0.50% 1/16W
R279	1-216-659-11	s	METAL, CHIP 2.2K 0.5% 1/10W
R280	1-208-810-11	s	CHIP, METAL 15K 0.50% 1/10W
R281	1-218-699-11	s	METAL, CHIP 2K 0.50% 1/16W
R282	1-218-706-11	s	METAL 3.9K 0.50% 1/16W
R283	1-218-706-11	s	METAL 3.9K 0.50% 1/16W
R284	1-218-856-11	s	CHIP, METAL 2.4K 0.50% 1/16W
R285	1-218-856-11	s	CHIP, METAL 2.4K 0.50% 1/16W
R296	1-216-649-11	s	METAL, CHIP 820 0.5% 1/10W
R297	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R298	1-208-824-11	s	CHIP, METAL 56K 0.50% 1/10W
R299	1-216-687-11	s	METAL, CHIP 33K 0.5% 1/10W
RV4	1-241-266-11	s	RES, ADJ, METAL 50K
RV5	1-241-266-11	s	RES, ADJ, METAL 50K
RV6	1-241-266-11	s	RES, ADJ, METAL 50K
RV7	1-241-263-11	s	RES, ADJ, METALT 5K
RV8	1-241-266-11	s	RES, ADJ, METAL 50K
RV9	1-241-263-11	s	RES, ADJ, METALT 5K
RV10	1-241-263-11	s	RES, ADJ, METALT 5K
RV11	1-241-263-11	s	RES, ADJ, METALT 5K
RV12	1-241-264-11	s	RES, ADJ, METALT 10K
RV13	1-241-264-11	s	RES, ADJ, METALT 10K
RV14	1-241-264-11	s	RES, ADJ, METALT 10K
RV15	1-238-092-11	s	RES, ADJ METAL 47K
RV16	1-238-092-11	s	RES, ADJ METAL 47K
RV17	1-238-092-11	s	RES, ADJ METAL 47K

SR-55 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8275-594-A	o	MOUNTED CIRCUIT BOARD, SR-55
C1	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C2	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
CN309	1-765-130-11	s	CABLE, FLAT 8P
PH1	8-719-948-58	s	PHOTO SENSOR GP2S07B
PH2	8-719-948-58	s	PHOTO SENSOR GP2S07B
PH3	8-719-948-58	s	PHOTO SENSOR GP2S07B
PH4	8-719-948-58	s	PHOTO SENSOR GP2S07B
Q1	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q2	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
R1	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R2	1-216-109-00	s	METAL, CHIP 330K 5% 1/10W
R3	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R4	1-216-109-00	s	METAL, CHIP 330K 5% 1/10W
R5	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R6	1-216-109-00	s	METAL, CHIP 330K 5% 1/10W
R7	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R8	1-216-109-00	s	METAL, CHIP 330K 5% 1/10W
R9	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W

Please see page 13-40 for the part numbers of resistor that is not the parts list.

SS-57/57A BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8275-591-A	o	MOUNTED CIRCUIT BOARD, SS-57 [for J, UC]
1pc	A-8275-693-A	o	MOUNTED CIRCUIT BOARD, SS-57A [for EK]
C1	1-124-779-00	s	ELECT 10uF 20% 16V
C2	1-126-193-11	s	ELECT 1uF 20% 50V
C3	1-126-603-11	s	ELECT 4.7uF 20% 35V
C4	1-163-099-00	s	CERAMIC, CHIP 18PF 5% 50V
C5	1-163-237-11	s	CERAMIC 27PF 5% 50V
C6	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C7	1-162-964-11	s	CERAMIC 0.001uF 10% 50V
C8	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C9	1-126-205-11	s	ELECT 47uF 20% 6.3
C10	1-124-778-00	s	ELECT 22uF 20% 6.3V
C12	1-124-778-00	s	ELECT 22uF 20% 6.3V
C13	1-126-397-11	s	ELECT, CHIP 33uF 20% 25V
C14	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C15	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C16	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C17	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C19	1-164-756-11	s	CERAMIC CHIP 0.0033uF 5% 50V
C21	1-165-176-11	s	CERAMIC CHIP 0.047uF 10% 16V
C22	1-162-957-11	s	CERAMIC 220PF 5% 50V
C23	1-165-176-11	s	CERAMIC CHIP 0.047uF 10% 16V
C24	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C25	1-126-206-11	s	ELECT 100uF 20% 6.3V
C201	1-165-176-11	s	CERAMIC CHIP 0.047uF 10% 16V
C202	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C204	1-164-677-11	s	CERAMIC 0.033uF 10% 16V
C205	1-124-778-00	s	ELECT 22uF 20% 6.3V
C206	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C207	1-165-176-11	s	CERAMIC CHIP 0.047uF 10% 16V
C208	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C209	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C211	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C212	1-164-677-11	s	CERAMIC 0.033uF 10% 16V
C213	1-162-967-11	s	CERAMIC 0.0033uF 10% 50V
C214	1-135-211-11	s	TANTALUM, CHIP 6.8uF 20% 6.3V
C215	1-135-211-11	s	TANTALUM, CHIP 6.8uF 20% 6.3V
C216	1-162-963-11	s	CERAMIC, CHIP 680PF 10% 50V
C217	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C218	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C219	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C220	1-162-964-11	s	CERAMIC 0.001uF 10% 50V
C221	1-163-099-00	s	CERAMIC, CHIP 18PF 5% 50V
C222	1-163-237-11	s	CERAMIC 27PF 5% 50V
C223	1-164-677-11	s	CERAMIC 0.033uF 10% 16V
C224	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C225	1-162-969-11	s	CERAMIC 0.0068uF 10% 25V
C226	1-162-965-11	s	CERAMIC 0.0015uF 10% 50V
C227	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C228	1-126-941-11	s	ELECT 470uF 20% 25V
C229	1-162-968-11	s	CERAMIC, CHIP 0.0047uF 10% 50V
C230	1-111-056-11	s	ELECT 82uF 20% 25V
C231	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C236	1-162-964-11	s	CERAMIC 0.001uF 10% 50V
C237	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C238	1-162-964-11	s	CERAMIC 0.001uF 10% 50V
C239	1-164-227-11	s	CERAMIC 0.022uF 10% 25V

(SS-57/57A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C240	1-162-964-11	s	CERAMIC 0.001uF 10% 50V
C241	1-164-677-11	s	CERAMIC 0.033uF 10% 16V
C242	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C243	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C244	1-165-176-11	s	CERAMIC CHIP 0.047uF 10% 16V
C245	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C246	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C247	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C248	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C249	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C250	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C251	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C252	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C253	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C254	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C255	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C256	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C257	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C258	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C259	1-124-779-00	s	ELECT 10uF 20% 16V
C260	1-124-779-00	s	ELECT 10uF 20% 16V
C261	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C262	1-126-943-11	s	ELECT 2200uF 20% 25V
C401	1-162-967-11	s	CERAMIC 0.0033uF 10% 50V
C402	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C405	1-162-967-11	s	CERAMIC 0.0033uF 10% 50V
C406	1-162-964-11	s	CERAMIC 0.001uF 10% 50V
C407	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C408	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C409	1-164-677-11	s	CERAMIC 0.033uF 10% 16V
C410	1-164-677-11	s	CERAMIC 0.033uF 10% 16V
C411	1-162-969-11	s	CERAMIC 0.0068uF 10% 25V
C412	1-162-965-11	s	CERAMIC 0.0015uF 10% 50V
C413	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C414	1-111-056-11	s	ELECT 82uF 20% 25V
C415	1-162-968-11	s	CERAMIC, CHIP 0.0047uF 10% 50V
C416	1-111-056-11	s	ELECT 82uF 20% 25V
C417	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C421	1-124-778-00	s	ELECT 22uF 20% 6.3V
C422	1-124-779-00	s	ELECT 10uF 20% 16V
C423	1-124-779-00	s	ELECT 10uF 20% 16V
C424	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C500	1-163-038-11	s	CERAMIC CHIP 0.1uF 25V0%
C501	1-162-957-11	s	CERAMIC 220PF 5% 50V
C502	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C503	1-162-963-11	s	CERAMIC, CHIP 680PF 10% 50V
C504	1-162-957-11	s	CERAMIC 220PF 5% 50V
C505	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C506	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
CN301	1-569-035-11	o	CONNECTOR, FPC (ZIF) 30P
CN302	1-565-212-11	s	CONNECTOR, FPC (ZIF) 26P
CN303	1-566-532-11	s	CONNECTOR, FPC (ZIF) 16P
CN304	1-566-531-11	s	CONNECTOR, FPC (ZIF) 15P FEMALE
CN305	1-506-481-11	s	CONNECTOR, 2P, MALE
CN306	1-566-521-11	s	CONNECTOR, 5P
CN307	1-566-526-11	s	CONNECTOR, 10P
CN308	1-506-481-11	s	CONNECTOR, 2P, MALE
CN309	1-566-524-21	s	CONNECTOR, FPC (ZIF) 8P
CN311	1-506-484-11	s	CONNECTOR, 5P, MALE

(SS-57/57A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
CN350	1-506-485-11	s	CONNECTOR, 6P, MALE
D1	8-719-404-35	s	DIODE MA141WK
D2	8-719-157-42	s	DIODE RD8.2M-B
D201	8-719-404-35	s	DIODE MA141WK
D202	8-719-404-35	s	DIODE MA141WK
D203	8-719-404-35	s	DIODE MA141WK
D204	8-719-028-74	s	DIODE NSQ03A04
D205	8-719-106-88	s	DIODE RD15M-B1
D206	8-719-210-56	s	DIODE EC10QS10
D401	8-719-404-35	s	DIODE MA141WK
D403	8-719-028-74	s	DIODE NSQ03A04
D404	8-719-106-88	s	DIODE RD15M-B1
D405	8-719-210-56	s	DIODE EC10QS10
D406	8-719-800-76	s	DIODE 1SS226
IC1	8-752-863-84	s	IC CXP80624-494Q
IC2	8-759-940-45	s	IC S-8054HN-CB
IC3	8-759-009-51	s	IC MC14538BF
IC4	8-759-925-74	s	IC SN74HC04ANS
IC6	8-759-805-32	s	IC LA7205M
IC201	8-752-854-51	s	IC CXP80624-486Q
IC202	8-759-700-43	s	IC NJM4558M
IC203	8-759-700-43	s	IC NJM4558M
IC204	8-759-700-07	s	IC NJM2903M
IC205	8-759-009-11	s	IC MC14070BF
IC206	8-759-008-82	s	IC MC14013BF
IC207	8-759-300-71	s	IC MC14053BF
IC208	8-759-144-75	s	IC UPC4572G2-E2
IC209	8-759-700-07	s	IC NJM2903M
IC210	8-759-100-95	s	IC UPC324G2
IC211	8-759-981-61	s	IC LM2901M
IC213	8-759-300-71	s	IC MC14053BF
IC214	8-759-159-70	s	IC BR9021BF
IC216	8-759-009-12	s	IC MC14071BF
IC217	8-759-245-52	s	IC TA7291F
IC218	8-759-067-52	s	IC MB88347PFV-G-BND-ER
IC219	8-759-821-88	s	IC CXA8004M
IC220	8-759-700-07	s	IC NJM2903M
IC500	8-759-144-75	s	IC UPC4572G2-E2
IC501	8-759-300-71	s	IC MC14053BF
L1	1-410-626-11	s	COIL, CHOKE 47uH
L2	1-410-390-11	s	INDUCTOR CHIP 56UH
L201	1-424-517-11	s	COIL, CHOKE 200uH
L202	1-408-777-00	s	INDUCTOR CHIP 10uH
L203	1-408-777-00	s	INDUCTOR CHIP 10uH
L204	1-408-777-00	s	INDUCTOR CHIP 10uH
L205	1-408-777-00	s	INDUCTOR CHIP 10uH
L206	1-410-390-11	s	INDUCTOR CHIP 56UH
L207	1-424-517-11	s	COIL, CHOKE 200uH
L401	1-424-517-11	s	COIL, CHOKE 200uH
L402	1-410-626-11	s	COIL, CHOKE 47uH
PH1	8-719-939-05	s	PHOTOINTERRUPTER GP-1S54
PH2	8-719-939-05	s	PHOTOINTERRUPTER GP-1S54
PH3	8-719-939-05	s	PHOTOINTERRUPTER GP-1S54
PH5	8-719-939-11	s	PHOTOINTERRUPTER GP-2S09-B
PH6	8-719-939-11	s	PHOTOINTERRUPTER GP-2S09-B
Q1	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q2	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6

(SS-57/57A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q3	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q5	8-729-920-48	s	TRANSISTOR IMH2
Q6	8-729-920-48	s	TRANSISTOR IMH2
Q8	8-729-920-48	s	TRANSISTOR IMH2
Q9	8-729-920-48	s	TRANSISTOR IMH2
Q11	8-729-141-48	s	TRANSISTOR 2SB624-BV345
Q12	8-729-141-48	s	TRANSISTOR 2SB624-BV345
Q14	8-729-925-47	s	TRANSISTOR IMB2
Q201	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q203	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q204	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q207	8-729-120-53	s	TRANSISTOR 2SJ132-Z
Q208	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q209	8-729-220-93	s	TRANSISTOR 2SK209-G
Q210	8-729-106-68	s	TRANSISTOR 2SC1615A-GP
Q211	8-729-905-23	s	TRANSISTOR 2SA1576R
Q212	8-729-807-51	s	TRANSISTOR 2SD1623-S
Q213	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q214	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q215	8-729-905-23	s	TRANSISTOR 2SA1576R
Q216	8-729-141-75	s	TRANSISTOR 2SD596DV345
Q217	8-729-141-75	s	TRANSISTOR 2SD596DV345
Q402	8-729-923-99	s	TRANSISTOR DTA114YU
Q404	8-729-120-53	s	TRANSISTOR 2SJ132-Z
Q405	8-729-905-23	s	TRANSISTOR 2SA1576R
Q406	8-729-807-51	s	TRANSISTOR 2SD1623-S
Q407	8-729-220-93	s	TRANSISTOR 2SK209-G
Q408	8-729-106-68	s	TRANSISTOR 2SC1615A-GP
Q409	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q410	8-729-905-23	s	TRANSISTOR 2SA1576R
Q411	8-729-141-75	s	TRANSISTOR 2SD596DV345
Q412	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q500	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q501	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q502	8-729-905-23	s	TRANSISTOR 2SA1576R
R29	1-218-706-11	s	METAL 3.9K 0.50% 1/16W
R30	1-218-844-11	s	METAL, CHIP 750 0.50% 1/16W
R31	1-218-730-11	s	METAL, CHIP 39K 0.50% 1/16W
R32	1-218-881-11	s	METAL CHIP 27K 0.50% 1/16W
R57	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R58	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R59	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R60	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R61	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R62	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R63	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R64	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R65	1-216-025-00	s	METAL, CHIP 100 5% 1/10W
R70	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R74	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R89	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R93	1-218-727-11	s	METAL 30K 0.50% 1/16W
R94	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R95	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R96	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R97	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R98	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R99	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R202	1-216-081-00	s	METAL, CHIP 22K 5% 1/10W

Please see page 13-40 for the part numbers of resistor that is not the parts list.

(SS-57/57A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R215	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R216	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R218	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R219	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R220	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R221	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R223	1-216-081-00	s	METAL, CHIP 22K 5% 1/10W
R232	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R235	1-216-061-00	s	METAL, CHIP 3.3K 5% 1/10W
R236	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R237	1-216-081-00	s	METAL, CHIP 22K 5% 1/10W
R247	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R255	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R256	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R257	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R258	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R259	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R260	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R261	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R262	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R263	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R265	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R266	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R267	1-216-089-91	s	METAL 47K 5% 1/10W
R268	1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
R270	1-216-081-00	s	METAL, CHIP 22K 5% 1/10W
R274	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R275	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R276	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R277	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R278	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R279	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R281	1-216-061-00	s	METAL, CHIP 3.3K 5% 1/10W
R282	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R283	1-216-071-00	s	METAL, CHIP 8.2K 5% 1/10W
R284	1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
R285	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R291	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R292	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R293	1-216-304-11	s	METAL 3.3 5% 1/10W
R294	1-216-304-11	s	METAL 3.3 5% 1/10W
R295	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R296	1-216-081-00	s	METAL, CHIP 22K 5% 1/10W
R300	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R301	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R302	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R303	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R310	1-216-081-00	s	METAL, CHIP 22K 5% 1/10W
R311	1-216-081-00	s	METAL, CHIP 22K 5% 1/10W
R312	1-216-089-91	s	METAL 47K 5% 1/10W
R313	1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
R314	1-216-089-91	s	METAL 47K 5% 1/10W
R315	1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
R320	1-216-089-91	s	METAL 47K 5% 1/10W
R325	1-218-881-11	s	METAL CHIP 27K 0.50% 1/16W
R326	1-218-881-11	s	METAL CHIP 27K 0.50% 1/16W
R334	1-216-306-11	s	METAL 3.9 5% 1/10W
R335	1-216-089-91	s	METAL 47K 5% 1/10W
R336	1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
R337	1-216-089-91	s	METAL 47K 5% 1/10W
R338	1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
R410	1-218-740-11	s	METAL 100K 0.50% 1/16W
R411	1-218-740-11	s	METAL 100K 0.50% 1/16W
R421	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R422	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
R423	1-216-083-00	s	METAL, CHIP 27K 5% 1/10W
R424	1-216-089-91	s	METAL 47K 5% 1/10W
R425	1-216-081-00	s	METAL, CHIP 22K 5% 1/10W
R429	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R430	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R431	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R432	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R433	1-216-061-00	s	METAL, CHIP 3.3K 5% 1/10W
R434	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R435	1-216-071-00	s	METAL, CHIP 8.2K 5% 1/10W
R436	1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
R437	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R439	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R440	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R441	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R446	1-216-089-91	s	METAL 47K 5% 1/10W
R447	1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
R448	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R453	1-218-844-11	s	METAL, CHIP 750 0.50% 1/16W
R454	1-218-706-11	s	METAL 3.9K 0.50% 1/16W
R455	1-216-089-91	s	METAL 47K 5% 1/10W
R456	1-216-049-00	s	METAL, CHIP 1K 5% 1/10W
R457	1-216-097-00	s	METAL, CHIP 100K 5% 1/10W
S1	1-572-719-11	s	SWITCH, PUSH (1 KEY)
X1	1-760-337-21	s	VIBRATOR, CRYSTAL
X201	1-760-337-21	s	VIBRATOR, CRYSTAL

Please see page 13-40 for the part numbers of resistor that is not the parts list.

SW-654 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-651-579-11	o	PRINTED CIRCUIT BOAR, SW-654
CN1	1-565-880-11	s	PIN, CONNECTOR 8P
CN2	1-565-878-11	s	PIN, CONNECTOR 6P
D1	8-719-970-91	s	DIODE GL1HS112
D2	8-719-970-91	s	DIODE GL1HS112
D3	8-719-984-17	s	DIODE GL1EG112-CD
R1	1-247-823-31	s	CARBON 470 5% 1/4W
R2	1-247-823-31	s	CARBON 470 5% 1/4W
R3	1-249-434-11	s	CARBON 27K 5% 1/4W
R4	1-249-437-11	s	CARBON 47K 5% 1/4W
R5	1-249-434-11	s	CARBON 27K 5% 1/4W
R6	1-249-437-11	s	CARBON 47K 5% 1/4W
R7	1-247-823-31	s	CARBON 470 5% 1/4W
RV1	1-230-337-11	s	RES, VAR, CARBON 10K
RV2	1-230-337-11	s	RES, VAR, CARBON 10K
S1	1-554-174-00	s	SWITCH, TACTILE
S2	1-554-174-00	s	SWITCH, TACTILE
S3	1-554-174-00	s	SWITCH, TACTILE
S4	1-554-174-00	s	SWITCH, TACTILE
S5	1-554-174-00	s	SWITCH, TACTILE

SW-656 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-565-977-11	s	CONTACT, FEMALE AWG 28-32
1pc	1-569-619-11	o	HOUSING, CONNECTOR 4P
1pc	1-651-581-11	o	PRINTED CIRCUIT BOAR, SW-656
CN1	1-566-758-11	o	PIN, CONNECTOR (PC BOARD) 3P
R1	1-249-437-11	s	CARBON 47K 5% 1/4W
R2	1-249-437-11	s	CARBON 47K 5% 1/4W
R3	1-249-433-11	s	CARBON 22K 5% 1/4W
R4	1-249-409-11	s	CARBON 220 5% 1/4W
R5	1-249-419-11	s	CARBON 1.5K 5% 1/4W
S1	1-554-174-00	s	SWITCH, TACTILE
S2	1-554-174-00	s	SWITCH, TACTILE
S3	1-554-174-00	s	SWITCH, TACTILE
S4	1-570-984-11	s	SWITCH, TOGGLE
W1	1-953-149-11	o	HARNESS, SUB (SW-3)

SW-655 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-651-580-11	o	PRINTED CIRCUIT BOAR, SW-655
CN1	1-565-876-11	o	PIN, CONNECTOR (PC BOARD) 4P
R1	1-249-437-11	s	CARBON 47K 5% 1/4W
R2	1-247-855-31	s	CARBON 10K 5% 1/4W
R3	1-249-434-11	s	CARBON 27K 5% 1/4W
R4	1-249-437-11	s	CARBON 47K 5% 1/4W
R5	1-247-855-31	s	CARBON 10K 5% 1/4W
R6	1-249-434-11	s	CARBON 27K 5% 1/4W
R7	1-249-434-11	s	CARBON 27K 5% 1/4W
S1	1-570-985-11	s	SWITCH, TOGGLE
S2	1-570-984-11	s	SWITCH, TOGGLE
S3	1-570-985-11	s	SWITCH, TOGGLE
S4	1-571-396-11	s	SWITCH, TOGGLE

Please see page 13-40 for the part numbers of resistor that is not the parts list.

TC-86/86A BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8275-586-A	o	MOUNTED CIRCUIT BOARD, TC-86 [for J, UC]]
1pc	A-8275-692-A	o	MOUNTED CIRCUIT BOARD, TC-86A [for EK]
BT911	1-550-104-32	s	HOLDER, BATTERY
C10	1-164-360-11	s	CERAMIC 0.1uF 16V
C11	1-124-779-00	s	ELECT 10uF 20% 16V
C12	1-164-360-11	s	CERAMIC 0.1uF 16V
C13	1-124-779-00	s	ELECT 10uF 20% 16V
C14	1-164-360-11	s	CERAMIC 0.1uF 16V
C15	1-162-917-11	s	CERAMIC, CHIP 15PF 5% 50V
C16	1-126-397-11	s	ELECT, CHIP 33uF 20% 25V
C17	1-164-360-11	s	CERAMIC 0.1uF 16V
C18	1-128-020-11	s	ELECT, CHIP 10uF 0 6.3V
C19	1-128-020-11	s	ELECT, CHIP 10uF 0 6.3V
C20	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C21	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C22	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C23	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C24	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C25	1-164-360-11	s	CERAMIC 0.1uF 16V
C101	1-164-315-11	s	CERAMIC 470PF 5% 50V
C102	1-126-193-11	s	ELECT 1uF 20% 50V
C103	1-128-049-11	s	ELECT, CHIP 1uF 0 50V
C104	1-164-315-11	s	CERAMIC 470PF 5% 50V
C105	1-126-193-11	s	ELECT 1uF 20% 50V
C106	1-162-915-11	s	CERAMIC, CHIP 10PF 5PF 50V
C107	1-162-915-11	s	CERAMIC, CHIP 10PF 5PF 50V
C108	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C109	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C110	1-163-145-00	s	CERAMIC, CHIP 0.0015uF 5% 50V
C111	1-163-137-00	s	CERAMIC, CHIP 680PF 5% 50V
C112	1-128-020-11	s	ELECT, CHIP 10uF 0 6.3V
C113	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C114	1-124-779-00	s	ELECT 10uF 20% 16V
C115	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C116	1-124-779-00	s	ELECT 10uF 20% 16V
C117	1-126-398-11	s	ELECT, CHIP 4.7uF 20% 35V
C118	1-124-779-00	s	ELECT 10uF 20% 16V
C119	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C201	1-164-315-11	s	CERAMIC 470PF 5% 50V
C202	1-126-193-11	s	ELECT 1uF 20% 50V
C203	1-128-049-11	s	ELECT, CHIP 1uF 0 50V
C204	1-164-315-11	s	CERAMIC 470PF 5% 50V
C205	1-126-193-11	s	ELECT 1uF 20% 50V
C206	1-162-915-11	s	CERAMIC, CHIP 10PF 5PF 50V
C207	1-162-915-11	s	CERAMIC, CHIP 10PF 5PF 50V
C208	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C209	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C210	1-163-145-00	s	CERAMIC, CHIP 0.0015uF 5% 50V
C211	1-163-137-00	s	CERAMIC, CHIP 680PF 5% 50V
C213	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C214	1-124-779-00	s	ELECT 10uF 20% 16V
C215	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C216	1-124-779-00	s	ELECT 10uF 20% 16V
C217	1-126-398-11	s	ELECT, CHIP 4.7uF 20% 35V
C218	1-124-779-00	s	ELECT 10uF 20% 16V
C219	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V

(TC-86/86A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C220	1-126-390-11	s	ELECT, CHIP 22uF 20% 6.3V
C303	1-124-779-00	s	ELECT 10uF 20% 16V
C304	1-128-020-11	s	ELECT, CHIP 10uF 0 6.3V
C403	1-124-779-00	s	ELECT 10uF 20% 16V
C404	1-128-020-11	s	ELECT, CHIP 10uF 0 6.3V
C501	1-164-360-11	s	CERAMIC 0.1uF 16V
C502	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C503	1-164-360-11	s	CERAMIC 0.1uF 16V
C504	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C505	1-164-360-11	s	CERAMIC 0.1uF 16V
C506	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C507	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C508	1-164-360-11	s	CERAMIC 0.1uF 16V
C509	1-164-360-11	s	CERAMIC 0.1uF 16V
C510	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C511	1-164-360-11	s	CERAMIC 0.1uF 16V
C512	1-124-779-00	s	ELECT 10uF 20% 16V
C513	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C550	1-164-360-11	s	CERAMIC 0.1uF 16V
C551	1-163-215-00	s	CERAMIC CHIP 0.0027uF 5% 50V
C552	1-163-141-00	s	CERAMIC, CHIP 0.001uF 5% 50V
C553	1-162-959-11	s	CERAMIC 330PF 5% 50V
C554	1-107-498-11	s	FILM 0.0022uF 2% 50V
C556	1-163-809-11	s	CERAMIC, CHIP 0.047uF 10% 25V
C557	1-107-498-11	s	FILM 0.0022uF 2% 50V
C559	1-107-499-11	s	FILM 0.0039uF 2% 16V
C560	1-163-135-00	s	CERAMIC, CHIP 560PF 5% 50V
C561	1-135-145-11	s	TANTALUM, CHIP 0.47uF 10% 35V
C562	1-164-492-11	s	CERAMIC CHIP 0.15uF 10% 16V
C563	1-164-695-11	s	CERAMIC CHIP 0.0022uF 5% 50V
C564	1-107-828-11	s	FILM 0.015uF 2% 16V
C565	1-164-346-11	s	CERAMIC 1uF 16V
C566	1-164-489-11	s	CERAMIC CHIP 0.22uF 10% 16V
C567	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C568	1-107-829-11	s	FILM 0.056uF 2% 16V
C570	1-163-020-00	s	CERAMIC 0.0082uF 10% 50V
C571	1-164-346-11	s	CERAMIC 1uF 16V
C572	1-107-553-11	s	FILM, CHIP 0.0056uF 2% 16V
C573	1-163-139-00	s	CERAMIC, CHIP 820PF 5% 50V
C574	1-107-827-11	s	FILM 0.01uF 2% 16V
C575	1-164-695-11	s	CERAMIC CHIP 0.0022uF 5% 50V
C576	1-128-020-11	s	ELECT, CHIP 10uF 0 6.3V
C601	1-164-360-11	s	CERAMIC 0.1uF 16V
C602	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C603	1-164-360-11	s	CERAMIC 0.1uF 16V
C604	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C605	1-164-360-11	s	CERAMIC 0.1uF 16V
C606	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C607	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C608	1-164-360-11	s	CERAMIC 0.1uF 16V
C609	1-164-360-11	s	CERAMIC 0.1uF 16V
C610	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C611	1-164-360-11	s	CERAMIC 0.1uF 16V
C612	1-124-779-00	s	ELECT 10uF 20% 16V
C613	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C650	1-164-360-11	s	CERAMIC 0.1uF 16V
C651	1-163-215-00	s	CERAMIC CHIP 0.0027uF 5% 50V
C652	1-163-141-00	s	CERAMIC, CHIP 0.001uF 5% 50V
C653	1-162-959-11	s	CERAMIC 330PF 5% 50V

Please see page 13-40 for the part numbers of resistor that is not the parts list.

(TC-86/86A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C654	1-107-498-11	s	FILM 0.0022uF 2% 50V
C656	1-163-809-11	s	CERAMIC, CHIP 0.047uF 10% 25V
C657	1-107-498-11	s	FILM 0.0022uF 2% 50V
C659	1-107-499-11	s	FILM 0.0039uF 2% 16V
C660	1-163-135-00	s	CERAMIC, CHIP 560PF 5% 50V
C661	1-135-145-11	s	TANTALUM, CHIP 0.47uF 10% 35V
C662	1-164-492-11	s	CERAMIC CHIP 0.15uF 10% 16V
C663	1-164-695-11	s	CERAMIC CHIP 0.0022uF 5% 50V
C664	1-107-828-11	s	FILM 0.015uF 2% 16V
C665	1-164-346-11	s	CERAMIC 1uF 16V
C666	1-164-489-11	s	CERAMIC CHIP 0.22uF 10% 16V
C667	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C668	1-107-829-11	s	FILM 0.056uF 2% 16V
C670	1-163-020-00	s	CERAMIC 0.0082uF 10% 50V
C671	1-164-346-11	s	CERAMIC 1uF 16V
C672	1-107-553-11	s	FILM, CHIP 0.0056uF 2% 16V
C673	1-163-139-00	s	CERAMIC, CHIP 820PF 5% 50V
C674	1-107-827-11	s	FILM 0.01uF 2% 16V
C675	1-164-695-11	s	CERAMIC CHIP 0.0022uF 5% 50V
C676	1-128-020-11	s	ELECT, CHIP 10uF 0 6.3V
C701	1-164-315-11	s	CERAMIC 470PF 5% 50V
C702	1-126-193-11	s	ELECT 1uF 20% 50V
C704	1-164-315-11	s	CERAMIC 470PF 5% 50V
C705	1-126-193-11	s	ELECT 1uF 20% 50V
C706	1-126-193-11	s	ELECT 1uF 20% 50V
C707	1-162-915-11	s	CERAMIC, CHIP 10PF 5PF 50V
C708	1-162-915-11	s	CERAMIC, CHIP 10PF 5PF 50V
C709	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C710	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C713	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C714	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C715	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C716	1-128-024-11	s	ELECT, CHIP 4.7uF 0 10V
C717	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C718	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C719	1-163-809-11	s	CERAMIC, CHIP 0.047uF 10% 25V
C720	1-126-412-11	s	ELECT 220uF 20% 4V
C721	1-128-020-11	s	ELECT, CHIP 10uF 0 6.3V
C722	1-128-020-11	s	ELECT, CHIP 10uF 0 6.3V
C723	1-128-020-11	s	ELECT, CHIP 10uF 0 6.3V
C724	1-124-779-00	s	ELECT 10uF 20% 16V
C725	1-124-779-00	s	ELECT 10uF 20% 16V
C726	1-124-779-00	s	ELECT 10uF 20% 16V
C728	1-135-149-21	s	TANTALUM, CHIP 2.2uF 10% 10V
C729	1-164-505-11	s	CERAMIC CHIP 2.2uF 16V
C730	1-164-505-11	s	CERAMIC CHIP 2.2uF 16V
C801	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C802	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C803	1-162-995-11	s	CERAMIC, CHIP 0.022uF 50V
C804	1-162-995-11	s	CERAMIC, CHIP 0.022uF 50V
C806	1-164-357-11	s	CERAMIC 1000PF 5% 50V
C808	1-135-145-11	s	TANTALUM, CHIP 0.47uF 10% 35V
C809	1-135-210-11	s	TANTALUM 4.7uF 10% 10V
C810	1-164-730-11	s	CERAMIC CHIP 0.0012uF 5% 50V
C811	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C812	1-126-391-11	s	ELECT, CHIP 47uF 20% 6.3V
C813	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C815	1-162-568-11	s	CERAMIC, CHIP 0.33uF 25V
C816	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V

(TC-86/86A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C817	1-164-360-11	s	CERAMIC 0.1uF 16V
C901	1-164-361-11	s	CERAMIC 0.047uF 16V
C902	1-162-995-11	s	CERAMIC, CHIP 0.022uF 50V
C910	1-162-995-11	s	CERAMIC, CHIP 0.022uF 50V
C911	1-126-601-11	s	ELECT 2.2uF 20% 50V
C912	1-126-601-11	s	ELECT 2.2uF 20% 50V
C913	1-124-779-00	s	ELECT 10uF 20% 16V
C914	1-164-360-11	s	CERAMIC 0.1uF 16V
C915	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C916	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C917	1-126-206-11	s	ELECT 100uF 20% 6.3V
C918	1-124-779-00	s	ELECT 10uF 20% 16V
C919	1-164-360-11	s	CERAMIC 0.1uF 16V
CN1	1-569-035-11	o	CONNECTOR, FPC (ZIF) 30P
CN2	1-569-035-11	o	CONNECTOR, FPC (ZIF) 30P
CN3	1-573-290-21	s	PIN, CONNECTOR (1.5MM) (SMD)4P
CN101	1-691-550-11	s	PIN, CONNECTOR 3P
CN201	1-691-550-11	s	PIN, CONNECTOR 3P
CN701	1-691-550-11	s	PIN, CONNECTOR 3P
CN702	1-691-551-11	s	PIN, CONNECTOR 8P
CN703	1-580-055-21	o	PIN, CONNECTOR 2P
CV1	1-141-345-11	s	CAP, TRIMMER 40PF
D1	8-719-902-27	s	LED EBR3402S, RED
D4	8-719-106-22	s	DIODE RD7.5M-B1
D5	8-719-105-90	s	DIODE RD5.6M-B1
D6	8-719-404-35	s	DIODE MA141WK
D101	8-719-820-41	s	DIODE 1SS302
D102	8-719-820-41	s	DIODE 1SS302
D103	8-719-820-41	s	DIODE 1SS302
D104	8-719-820-41	s	DIODE 1SS302
D105	8-719-820-41	s	DIODE 1SS302
D201	8-719-820-41	s	DIODE 1SS302
D202	8-719-820-41	s	DIODE 1SS302
D203	8-719-820-41	s	DIODE 1SS302
D204	8-719-820-41	s	DIODE 1SS302
D205	8-719-820-41	s	DIODE 1SS302
D550	8-719-820-41	s	DIODE 1SS302
D701	8-719-820-41	s	DIODE 1SS302
D702	8-719-820-41	s	DIODE 1SS302
D704	8-719-024-81	s	DIODE 1SS300-TE85L
D705	8-719-024-81	s	DIODE 1SS300-TE85L
D706	8-719-820-41	s	DIODE 1SS302
D707	8-719-820-41	s	DIODE 1SS302
D708	8-719-820-41	s	DIODE 1SS302
D802	8-719-105-28	s	DIODE RD2.4M-B
D803	8-719-105-28	s	DIODE RD2.4M-B
D804	8-719-820-41	s	DIODE 1SS302
D805	8-719-820-41	s	DIODE 1SS302
D901	8-719-987-41	s	DIODE CL-150Y-CD
D902	8-719-987-41	s	DIODE CL-150Y-CD
D903	8-719-987-41	s	DIODE CL-150Y-CD
D904	8-719-987-41	s	DIODE CL-150Y-CD
D905	8-719-987-41	s	DIODE CL-150Y-CD
D906	8-719-987-41	s	DIODE CL-150Y-CD
D907	8-719-987-41	s	DIODE CL-150Y-CD
D908	8-719-987-41	s	DIODE CL-150Y-CD
D909	8-719-938-72	s	DIODE SB01-05CP

Please see page 13-40 for the part numbers of
resistor that is not the parts list.

(TC-86/86A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
D911	8-719-938-72	s	DIODE SB01-05CP
D912	8-719-421-30	s	DIODE MA141A
IC1	8-759-346-32	s	IC UPD78064-029-3BA
IC2	8-759-948-48	s	IC RH5RA50A
IC3	8-759-089-05	s	IC BR93LC46F
IC10	8-759-346-30	s	IC UPD75516GF-598-3B9
IC101	8-759-144-75	s	IC UPC4572G2-E2
IC102	8-759-710-77	s	IC NJM4560MD
IC103	8-759-710-77	s	IC NJM4560MD
IC104	8-759-144-75	s	IC UPC4572G2-E2
IC105	8-759-710-77	s	IC NJM4560MD
IC110	8-759-208-09	s	IC TC4052BFHB
IC111	8-759-066-57	s	IC TC74HC4066AFS
IC113	8-759-242-64	s	IC TC4W53F
IC201	8-759-144-75	s	IC UPC4572G2-E2
IC202	8-759-710-77	s	IC NJM4560MD
IC205	8-759-710-77	s	IC NJM4560MD
IC210	8-759-208-09	s	IC TC4052BFHB
IC211	8-759-066-57	s	IC TC74HC4066AFS
IC213	8-759-242-64	s	IC TC4W53F
IC301	8-759-300-71	s	IC MC14053BF
IC303	8-759-700-43	s	IC NJM4558M
IC304	8-759-100-94	s	IC UPC358G2
IC501	8-759-710-77	s	IC NJM4560MD
IC502	8-759-700-43	s	IC NJM4558M
IC503	8-759-700-43	s	IC NJM4558M
IC504	8-759-700-43	s	IC NJM4558M
IC550	8-752-031-28	s	IC CXA1098Q
IC602	8-759-700-43	s	IC NJM4558M
IC603	8-759-700-43	s	IC NJM4558M
IC701	8-759-144-75	s	IC UPC4572G2-E2
IC702	8-759-710-77	s	IC NJM4560MD
IC703	8-759-711-58	s	IC NJM78L05UA
IC705	8-759-075-68	s	IC TC4066BFS
IC708	8-759-700-50	s	IC NJM386M
IC709	8-759-066-57	s	IC TC74HC4066AFS
IC710	8-759-710-77	s	IC NJM4560MD
IC711	8-759-066-61	s	IC TC4053BFS
IC801	8-759-944-79	s	IC CXD1132Q
IC802	8-759-925-74	s	IC SN74HC04ANS
IC803	8-759-300-71	s	IC MC14053BF
IC804	8-759-300-71	s	IC MC14053BF
IC805	8-759-700-45	s	IC NJM4556M-A
IC806	8-759-100-94	s	IC UPC358G2
IC807	8-759-009-02	s	IC MC14046BF
IC911	8-759-946-03	s	IC S-8054ALR-LN-S
L2	1-410-393-11	s	INDUCTOR CHIP 100uH
L3	1-410-393-11	s	INDUCTOR CHIP 100uH
L4	1-410-369-11	s	INDUCTOR CHIP 1UH
L101	1-410-380-31	s	INDUCTOR CHIP 8.2uH
L102	1-410-380-31	s	INDUCTOR CHIP 8.2uH
L201	1-410-380-31	s	INDUCTOR CHIP 8.2uH
L202	1-410-380-31	s	INDUCTOR CHIP 8.2uH
L701	1-410-380-31	s	INDUCTOR CHIP 8.2uH
L702	1-410-380-31	s	INDUCTOR CHIP 8.2uH
L703	1-408-797-11	s	INDUCTOR CHIP 470uH
L901	1-410-389-31	s	INDUCTOR CHIP 47uH
L911	1-410-393-11	s	INDUCTOR CHIP 100uH

(TC-86/86A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
ND1	1-810-463-11	s	DISPLAY, LCD
Q1	8-729-905-18	s	TRANSISTOR DTC144EU
Q2	8-729-905-18	s	TRANSISTOR DTC144EU
Q101	8-729-117-32	s	TRANSISTOR 2SC4177
Q102	8-729-905-12	s	TRANSISTOR DTA144EU
Q104	8-729-905-18	s	TRANSISTOR DTC144EU
Q106	8-729-117-32	s	TRANSISTOR 2SC4177
Q107	8-729-905-18	s	TRANSISTOR DTC144EU
Q108	8-729-117-32	s	TRANSISTOR 2SC4177
Q109	8-729-117-32	s	TRANSISTOR 2SC4177
Q110	8-729-117-32	s	TRANSISTOR 2SC4177
Q111	8-729-907-00	s	TRANSISTOR DTC114EU
Q113	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q114	8-729-905-18	s	TRANSISTOR DTC144EU
Q115	8-729-905-12	s	TRANSISTOR DTA144EU
Q116	8-729-905-18	s	TRANSISTOR DTC144EU
Q117	8-729-117-32	s	TRANSISTOR 2SC4177
Q118	8-729-905-18	s	TRANSISTOR DTC144EU
Q201	8-729-117-32	s	TRANSISTOR 2SC4177
Q202	8-729-905-12	s	TRANSISTOR DTA144EU
Q204	8-729-905-18	s	TRANSISTOR DTC144EU
Q206	8-729-117-32	s	TRANSISTOR 2SC4177
Q207	8-729-905-18	s	TRANSISTOR DTC144EU
Q208	8-729-117-32	s	TRANSISTOR 2SC4177
Q209	8-729-117-32	s	TRANSISTOR 2SC4177
Q210	8-729-117-32	s	TRANSISTOR 2SC4177
Q211	8-729-907-00	s	TRANSISTOR DTC114EU
Q213	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q214	8-729-905-18	s	TRANSISTOR DTC144EU
Q215	8-729-905-12	s	TRANSISTOR DTA144EU
Q216	8-729-905-18	s	TRANSISTOR DTC144EU
Q217	8-729-117-32	s	TRANSISTOR 2SC4177
Q218	8-729-905-18	s	TRANSISTOR DTC144EU
Q301	8-729-117-32	s	TRANSISTOR 2SC4177
Q302	8-729-117-32	s	TRANSISTOR 2SC4177
Q401	8-729-117-32	s	TRANSISTOR 2SC4177
Q402	8-729-117-32	s	TRANSISTOR 2SC4177
Q550	8-729-905-12	s	TRANSISTOR DTA144EU
Q703	8-729-117-32	s	TRANSISTOR 2SC4177
Q704	8-729-141-75	s	TRANSISTOR 2SD596DV345
Q705	8-729-117-32	s	TRANSISTOR 2SC4177
Q706	8-729-141-48	s	TRANSISTOR 2SB624-BV345
Q707	8-729-905-18	s	TRANSISTOR DTC144EU
Q708	8-729-141-48	s	TRANSISTOR 2SB624-BV345
Q709	8-729-905-12	s	TRANSISTOR DTA144EU
Q710	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q711	8-729-141-48	s	TRANSISTOR 2SB624-BV345
Q712	8-729-905-18	s	TRANSISTOR DTC144EU
Q713	8-729-141-75	s	TRANSISTOR 2SD596DV345
Q714	8-729-905-12	s	TRANSISTOR DTA144EU
Q715	8-729-905-12	s	TRANSISTOR DTA144EU
Q716	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q717	8-729-209-07	s	TRANSISTOR 2SC4213-B
Q801	8-729-905-18	s	TRANSISTOR DTC144EU
Q901	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q902	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q911	8-729-905-23	s	TRANSISTOR 2SA1576R
Q912	8-729-920-39	s	TRANSISTOR IMT1US

Please see page 13-40 for the part numbers of resistor that is not the parts list.

(TC-86/86A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q913	8-729-142-90	s	TRANSISTOR 2SK853-K5
Q914	8-729-920-39	s	TRANSISTOR IMT1US
Q915	8-729-905-18	s	TRANSISTOR DTC144EU
Q916	8-729-117-32	s	TRANSISTOR 2SC4177
Q917	8-729-907-26	s	TRANSISTOR IMX1
R104	1-218-695-11	s	METAL 1.3K 0.50% 1/16W
R105	1-218-697-11	s	METAL 1.6K 0.50% 1/16W
R109	1-218-740-11	s	METAL 100K 0.50% 1/16W
R110	1-218-740-11	s	METAL 100K 0.50% 1/16W
R112	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W
R113	1-218-677-11	s	METAL 240 0.50% 1/16W
R115	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R116	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R117	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R118	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R119	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R120	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R121	1-218-736-11	s	METAL 68K 0.50% 1/16W
R122	1-218-899-11	s	CHIP, METAL 150K 0.50% 1/16W
R124	1-218-705-11	s	METAL 3.6K 0.50% 1/16W
R125	1-218-705-11	s	METAL 3.6K 0.50% 1/16W
R127	1-218-699-11	s	METAL, CHIP 2K 0.50% 1/16W
R128	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R129	1-218-692-11	s	METAL 1K 0.50% 1/16W
R130	1-218-901-11	s	CHIP, METAL 180K 0.50% 1/16W
R133	1-218-684-11	s	METAL 470 0.50% 1/16W
R134	1-218-722-11	s	METAL, CHIP 18K 0.50% 1/16W
R136	1-218-716-11	s	METAL 10K 0.50% 1/16W
R137	1-218-723-11	s	METAL 20K 0.50% 1/16W
R139	1-218-723-11	s	METAL 20K 0.50% 1/16W
R140	1-218-684-11	s	METAL 470 0.50% 1/16W
R141	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W
R150	1-218-688-11	s	METAL 680 0.50% 1/16W
R151	1-218-688-11	s	METAL 680 0.50% 1/16W
R156	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R157	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R158	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R159	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R160	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R161	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R162	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R163	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R165	1-218-874-11	s	METAL CHIP 13K 0.50% 1/16W
R166	1-218-874-11	s	METAL CHIP 13K 0.50% 1/16W
R167	1-218-874-11	s	METAL CHIP 13K 0.50% 1/16W
R168	1-218-874-11	s	METAL CHIP 13K 0.50% 1/16W
R172	1-218-874-11	s	METAL CHIP 13K 0.50% 1/16W
R173	1-218-874-11	s	METAL CHIP 13K 0.50% 1/16W
R174	1-218-670-11	s	METAL 120 0.50% 1/16W
R204	1-218-695-11	s	METAL 1.3K 0.50% 1/16W
R205	1-218-697-11	s	METAL 1.6K 0.50% 1/16W
R209	1-218-740-11	s	METAL 100K 0.50% 1/16W
R210	1-218-740-11	s	METAL 100K 0.50% 1/16W
R212	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W
R213	1-218-677-11	s	METAL 240 0.50% 1/16W
R215	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R216	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R217	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R218	1-218-708-11	s	METAL 4.7K 0.50% 1/16W

(TC-86/86A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R219	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R220	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R221	1-218-736-11	s	METAL 68K 0.50% 1/16W
R222	1-218-899-11	s	CHIP, METAL 150K 0.50% 1/16W
R224	1-218-705-11	s	METAL 3.6K 0.50% 1/16W
R225	1-218-705-11	s	METAL 3.6K 0.50% 1/16W
R227	1-218-699-11	s	METAL, CHIP 2K 0.50% 1/16W
R228	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R229	1-218-692-11	s	METAL 1K 0.50% 1/16W
R230	1-218-901-11	s	CHIP, METAL 180K 0.50% 1/16W
R233	1-218-684-11	s	METAL 470 0.50% 1/16W
R234	1-218-722-11	s	METAL, CHIP 18K 0.50% 1/16W
R236	1-218-716-11	s	METAL 10K 0.50% 1/16W
R237	1-218-723-11	s	METAL 20K 0.50% 1/16W
R239	1-218-723-11	s	METAL 20K 0.50% 1/16W
R240	1-218-684-11	s	METAL 470 0.50% 1/16W
R241	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W
R250	1-218-688-11	s	METAL 680 0.50% 1/16W
R251	1-218-688-11	s	METAL 680 0.50% 1/16W
R256	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R257	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R258	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R259	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R260	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R261	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R262	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R263	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R265	1-218-874-11	s	METAL CHIP 13K 0.50% 1/16W
R266	1-218-874-11	s	METAL CHIP 13K 0.50% 1/16W
R267	1-218-874-11	s	METAL CHIP 13K 0.50% 1/16W
R268	1-218-874-11	s	METAL CHIP 13K 0.50% 1/16W
R272	1-218-874-11	s	METAL CHIP 13K 0.50% 1/16W
R273	1-218-874-11	s	METAL CHIP 13K 0.50% 1/16W
R274	1-218-670-11	s	METAL 120 0.50% 1/16W
R301	1-218-716-11	s	METAL 10K 0.50% 1/16W
R302	1-218-716-11	s	METAL 10K 0.50% 1/16W
R305	1-218-722-11	s	METAL, CHIP 18K 0.50% 1/16W
R306	1-218-722-11	s	METAL, CHIP 18K 0.50% 1/16W
R308	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R309	1-218-706-11	s	METAL 3.9K 0.50% 1/16W
R311	1-218-720-11	s	METAL 15K 0.50% 1/16W
R312	1-218-668-11	s	METAL 100 0.50% 1/16W
R315	1-218-772-11	s	METAL 680K 0.50% 1/10W
R316	1-218-732-11	s	METAL 47K 0.50% 1/16W
R317	1-218-732-11	s	METAL 47K 0.50% 1/16W
R319	1-218-716-11	s	METAL 10K 0.50% 1/16W
R401	1-218-716-11	s	METAL 10K 0.50% 1/16W
R402	1-218-716-11	s	METAL 10K 0.50% 1/16W
R405	1-218-722-11	s	METAL, CHIP 18K 0.50% 1/16W
R406	1-218-722-11	s	METAL, CHIP 18K 0.50% 1/16W
R408	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R409	1-218-706-11	s	METAL 3.9K 0.50% 1/16W
R411	1-218-720-11	s	METAL 15K 0.50% 1/16W
R412	1-218-668-11	s	METAL 100 0.50% 1/16W
R415	1-218-772-11	s	METAL 680K 0.50% 1/10W
R416	1-218-732-11	s	METAL 47K 0.50% 1/16W
R417	1-218-732-11	s	METAL 47K 0.50% 1/16W
R419	1-218-716-11	s	METAL 10K 0.50% 1/16W
R501	1-218-716-11	s	METAL 10K 0.50% 1/16W

Please see page 13-40 for the part numbers of
resistor that is not the parts list.

(TC-86/86A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R502	1-218-716-11	s	METAL 10K 0.50% 1/16W
R503	1-218-716-11	s	METAL 10K 0.50% 1/16W
R504	1-218-716-11	s	METAL 10K 0.50% 1/16W
R505	1-208-854-11	s	METAL 1M 0.50% 1/10W
R506	1-218-844-11	s	METAL, CHIP 750 0.50% 1/16W
R507	1-218-692-11	s	METAL 1K 0.50% 1/16W
R508	1-218-844-11	s	METAL, CHIP 750 0.50% 1/16W
R509	1-218-692-11	s	METAL 1K 0.50% 1/16W
R510	1-218-692-11	s	METAL 1K 0.50% 1/16W
R511	1-218-844-11	s	METAL, CHIP 750 0.50% 1/16W
R512	1-218-692-11	s	METAL 1K 0.50% 1/16W
R513	1-218-697-11	s	METAL 1.6K 0.50% 1/16W
R514	1-218-844-11	s	METAL, CHIP 750 0.50% 1/16W
R515	1-208-854-11	s	METAL 1M 0.50% 1/10W
R516	1-218-706-11	s	METAL 3.9K 0.50% 1/16W
R517	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R519	1-218-841-11	s	METAL, CHIP 560 0.50% 1/16W
R551	1-218-856-11	s	CHIP, METAL 2.4K 0.50% 1/16W
R552	1-218-856-11	s	CHIP, METAL 2.4K 0.50% 1/16W
R554	1-218-724-11	s	METAL 22K 0.50% 1/16W
R555	1-218-698-11	s	METAL 1.8K 0.50% 1/16W
R557	1-218-841-11	s	METAL, CHIP 560 0.50% 1/16W
R558	1-216-295-00	s	METAL, CHIP 0 5% 1/10W
R559	1-216-295-00	s	METAL, CHIP 0 5% 1/10W
R560	1-218-724-11	s	METAL 22K 0.50% 1/16W
R561	1-216-295-00	s	METAL, CHIP 0 5% 1/10W
R562	1-216-295-00	s	METAL, CHIP 0 5% 1/10W
R563	1-218-868-11	s	METAL CHIP 7.5K 0.50% 1/16W
R564	1-216-295-00	s	METAL, CHIP 0 5% 1/10W
R565	1-218-688-11	s	METAL 680 0.50% 1/16W
R566	1-218-870-11	s	METAL, CHIP 9.1K 0.50% 1/16W
R567	1-216-295-00	s	METAL, CHIP 0 5% 1/10W
R568	1-216-295-00	s	METAL, CHIP 0 5% 1/10W
R601	1-218-716-11	s	METAL 10K 0.50% 1/16W
R602	1-218-716-11	s	METAL 10K 0.50% 1/16W
R603	1-218-716-11	s	METAL 10K 0.50% 1/16W
R604	1-218-716-11	s	METAL 10K 0.50% 1/16W
R605	1-208-854-11	s	METAL 1M 0.50% 1/10W
R606	1-218-844-11	s	METAL, CHIP 750 0.50% 1/16W
R607	1-218-692-11	s	METAL 1K 0.50% 1/16W
R608	1-218-844-11	s	METAL, CHIP 750 0.50% 1/16W
R609	1-218-692-11	s	METAL 1K 0.50% 1/16W
R610	1-218-692-11	s	METAL 1K 0.50% 1/16W
R611	1-218-844-11	s	METAL, CHIP 750 0.50% 1/16W
R612	1-218-692-11	s	METAL 1K 0.50% 1/16W
R613	1-218-697-11	s	METAL 1.6K 0.50% 1/16W
R614	1-218-844-11	s	METAL, CHIP 750 0.50% 1/16W
R615	1-208-854-11	s	METAL 1M 0.50% 1/10W
R616	1-218-706-11	s	METAL 3.9K 0.50% 1/16W
R617	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R619	1-218-841-11	s	METAL, CHIP 560 0.50% 1/16W
R651	1-218-856-11	s	CHIP, METAL 2.4K 0.50% 1/16W
R652	1-218-856-11	s	CHIP, METAL 2.4K 0.50% 1/16W
R653	1-218-743-11	s	METAL 130K 0.50% 1/16W
R654	1-218-724-11	s	METAL 22K 0.50% 1/16W
R655	1-218-698-11	s	METAL 1.8K 0.50% 1/16W
R657	1-218-841-11	s	METAL, CHIP 560 0.50% 1/16W
R658	1-216-295-00	s	METAL, CHIP 0 5% 1/10W
R659	1-216-295-00	s	METAL, CHIP 0 5% 1/10W

(TC-86/86A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R660	1-218-724-11	s	METAL 22K 0.50% 1/16W
R661	1-216-295-00	s	METAL, CHIP 0 5% 1/10W
R662	1-216-295-00	s	METAL, CHIP 0 5% 1/10W
R663	1-218-868-11	s	METAL CHIP 7.5K 0.50% 1/16W
R664	1-216-295-00	s	METAL, CHIP 0 5% 1/10W
R665	1-218-688-11	s	METAL 680 0.50% 1/16W
R666	1-218-870-11	s	METAL, CHIP 9.1K 0.50% 1/16W
R667	1-216-295-00	s	METAL, CHIP 0 5% 1/10W
R668	1-216-295-00	s	METAL, CHIP 0 5% 1/10W
R702	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R703	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R704	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R705	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R706	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R707	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R708	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R709	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R711	1-218-874-11	s	METAL CHIP 13K 0.50% 1/16W
R712	1-218-874-11	s	METAL CHIP 13K 0.50% 1/16W
R713	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R714	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R715	1-216-295-00	s	METAL, CHIP 0 5% 1/10W
R718	1-218-829-11	s	METAL, CHIP 180 0.50% 1/16W
R719	1-218-829-11	s	METAL, CHIP 180 0.50% 1/16W
R720	1-218-829-11	s	METAL, CHIP 180 0.50% 1/16W
R721	1-218-829-11	s	METAL, CHIP 180 0.50% 1/16W
R723	1-218-858-11	s	METAL CHIP 3K 0.50% 1/16W
R729	1-218-833-11	s	METAL, CHIP 270 0.50% 1/16W
R734	1-218-722-11	s	METAL, CHIP 18K 0.50% 1/16W
R735	1-218-873-11	s	METAL, CHIP 12K 0.50% 1/16W
R741	1-218-868-11	s	METAL CHIP 7.5K 0.50% 1/16W
R742	1-218-672-11	s	METAL 150 0.50% 1/16W
R750	1-218-680-11	s	METAL 330 0.50% 1/16W
R751	1-218-680-11	s	METAL 330 0.50% 1/16W
R755	1-218-851-11	s	METAL CHIP 1.5K 0.50% 1/16W
R758	1-218-710-11	s	METAL, CHIP 5.6K 0.50% 1/16W
R759	1-218-706-11	s	METAL 3.9K 0.50% 1/16W
R763	1-218-704-11	s	METAL 3.3K 0.50% 1/16W
R764	1-218-866-11	s	METAL CHIP 6.2K 0.50% 1/16W
R765	1-211-969-11	s	METAL CHIP 10 0.50% 1/16W
R766	1-211-969-11	s	METAL CHIP 10 0.50% 1/16W
R768	1-218-694-11	s	METAL, CHIP 1.2K 0.50% 1/16W
R769	1-211-969-11	s	METAL CHIP 10 0.50% 1/16W
R770	1-218-694-11	s	METAL, CHIP 1.2K 0.50% 1/16W
R775	1-218-704-11	s	METAL 3.3K 0.50% 1/16W
R776	1-218-704-11	s	METAL 3.3K 0.50% 1/16W
R782	1-218-692-11	s	METAL 1K 0.50% 1/16W
R785	1-218-874-11	s	METAL CHIP 13K 0.50% 1/16W
R788	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W
R789	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W
R790	1-218-851-11	s	METAL CHIP 1.5K 0.50% 1/16W
R792	1-216-295-00	s	METAL, CHIP 0 5% 1/10W
R797	1-211-969-11	s	METAL CHIP 10 0.50% 1/16W
R830	1-218-851-11	s	METAL CHIP 1.5K 0.50% 1/16W
R831	1-218-874-11	s	METAL CHIP 13K 0.50% 1/16W [for J, UC]
R831	1-218-727-11	s	METAL 30K 0.50% 1/16W [for EK]
R833	1-218-704-11	s	METAL 3.3K 0.50% 1/16W [for J, UC]

Please see page 13-40 for the part numbers of resistor that is not the parts list.

(TC-86/86A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R833	1-218-858-11	s	METAL CHIP 3K 0.50% 1/16W [for EK]
R834	1-211-990-11	s	METAL CHIP 75 0.50% 1/16W
R845	1-218-716-11	s	METAL 10K 0.50% 1/16W
R849	1-220-158-91	s	METAL 3.6K 5% 1/16W
RV101	1-230-337-11	s	RES, VAR, CARBON 10K
RV102	1-238-087-11	s	RES, ADJ, 1K
RV201	1-230-337-11	s	RES, VAR, CARBON 10K
RV202	1-238-087-11	s	RES, ADJ, 1K
RV302	1-238-090-11	s	RES, ADJ, 10K
RV402	1-238-090-11	s	RES, ADJ, 10K
RV701	1-238-094-11	s	RES, ADJ METAL 220K
RV901	1-237-518-21	s	RES, ADJ, METAL 10K
RV902	1-237-518-21	s	RES, ADJ, METAL 10K
S1	1-572-855-11	s	SWITCH, SLIDE
S2	1-572-855-11	s	SWITCH, SLIDE
S3	1-570-909-11	s	SWITCH, PUSH
S4	1-570-909-11	s	SWITCH, PUSH
S5	1-570-909-11	s	SWITCH, PUSH
S6	1-572-855-11	s	SWITCH, SLIDE
S7	1-570-909-11	s	SWITCH, PUSH
S8	1-572-272-11	s	SWITCH, SLIDE
S9	1-572-272-11	s	SWITCH, SLIDE
S13	1-572-272-11	s	SWITCH, SLIDE
S14	1-572-855-11	s	SWITCH, SLIDE
S101	1-572-272-11	s	SWITCH, SLIDE
S102	1-572-342-11	s	SWITCH, SLIDE
S103	1-572-272-11	s	SWITCH, SLIDE
S201	1-572-272-11	s	SWITCH, SLIDE
S202	1-572-342-11	s	SWITCH, SLIDE
S203	1-572-272-11	s	SWITCH, SLIDE
S550	1-571-506-41	s	SWITCH, SLIDE
S701	1-572-011-11	s	SWITCH, SLIDE
S702	1-572-272-11	s	SWITCH, SLIDE
S901	1-572-272-11	s	SWITCH, SLIDE
S902	1-572-342-11	s	SWITCH, SLIDE
X1	1-579-843-11	s	CRYSTAL 4.194304MHz
X2	1-527-997-21	s	VIBRATOR, CRYSTAL 32.768kHz
X3	1-579-843-11	s	CRYSTAL 4.194304MHz
X802	1-579-994-12	s	CRYSTAL 14.31818MHz [for J, UC]
X802	1-760-429-11	s	CRYSTAL 14.5MHz [for EK]

VO-46/46A BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8275-592-A	o	MOUNTED CIRCUIT BOARD, VO-46 [for J, UC]]
1pc	A-8275-694-A	o	MOUNTED CIRCUIT BOARD, VO-46A [for EK]
C100	1-126-206-11	s	ELECT 100uF 20% 6.3V
C103	1-126-205-11	s	ELECT 47uF 20% 6.3
C104	1-162-922-11	s	CERAMIC, CHIP 39PF 5% 50V
C105	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C106	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C107	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C108	1-126-206-11	s	ELECT 100uF 20% 6.3V
C109	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C110	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C111	1-162-967-11	s	CERAMIC 0.0033uF 10% 50V
C112	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C114	1-104-923-11	s	MICA 180PF 0.25% 50V
C115	1-162-910-11	s	CERAMIC 5PF 0.25PF 50V
C117	1-162-905-11	s	CERAMIC 1PF 0.25PF 50V
C118	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C119	1-135-167-21	s	TANTALUM, CHIP 68uF 20% 6.3V
C120	1-135-157-21	s	TANTALUM, CHIP 10uF 10% 6.3V
C121	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C122	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C123	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C124	1-107-826-11	s	CERAMIC 0.1uF 10% 16V
C125	1-126-206-11	s	ELECT 100uF 20% 6.3V
C126	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C127	1-164-456-11	s	CERAMIC 24PF 5% 50V
C128	1-164-218-11	s	CERAMIC 180PF 5% 50V
C129	1-107-826-11	s	CERAMIC 0.1uF 10% 16V
C130	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C131	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C132	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C133	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C134	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C135	1-126-205-11	s	ELECT 47uF 20% 6.3
C136	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C137	1-126-205-11	s	ELECT 47uF 20% 6.3
C142	1-135-157-21	s	TANTALUM, CHIP 10uF 10% 6.3V
C144	1-126-205-11	s	ELECT 47uF 20% 6.3
C145	1-126-205-11	s	ELECT 47uF 20% 6.3
C147	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C200	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C201	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V [for EK]
C202	1-164-360-11	s	CERAMIC 0.1uF 16V
C203	1-164-360-11	s	CERAMIC 0.1uF 16V
C204	1-164-360-11	s	CERAMIC 0.1uF 16V
C205	1-164-360-11	s	CERAMIC 0.1uF 16V
C206	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C208	1-164-005-11	s	CERAMIC, CHIP 0.47uF 25V
C209	1-164-360-11	s	CERAMIC 0.1uF 16V
C210	1-126-206-11	s	ELECT 100uF 20% 6.3V
C211	1-164-360-11	s	CERAMIC 0.1uF 16V
C212	1-126-206-11	s	ELECT 100uF 20% 6.3V
C213	1-162-920-11	s	CERAMIC, CHIP 27PF 5% 50V [for J, UC]
C251	1-126-205-11	s	ELECT 47uF 20% 6.3
C252	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C253	1-164-360-11	s	CERAMIC 0.1uF 16V

Please see page 13-40 for the part numbers of
resistor that is not the parts list.

(VO-46/46A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C254	1-164-360-11	s	CERAMIC 0.1uF 16V
C255	1-162-905-11	s	CERAMIC 1PF 0.25PF 50V
C256	1-162-920-11	s	CERAMIC, CHIP 27PF 5% 50V
C257	1-164-360-11	s	CERAMIC 0.1uF 16V
C258	1-164-360-11	s	CERAMIC 0.1uF 16V
C300	1-126-205-11	s	ELECT 47uF 20% 6.3
C301	1-126-205-11	s	ELECT 47uF 20% 6.3
C302	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C303	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C304	1-162-924-11	s	CERAMIC 56PF 5% 50V [for J, UC]
C304	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V [for EK]
C305	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C306	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C307	1-126-205-11	s	ELECT 47uF 20% 6.3
C308	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C309	1-162-917-11	s	CERAMIC, CHIP 15PF 5% 50V [for EK]
C313	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C315	1-126-205-11	s	ELECT 47uF 20% 6.3
C350	1-126-205-11	s	ELECT 47uF 20% 6.3
C351	1-126-205-11	s	ELECT 47uF 20% 6.3
C352	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C353	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C354	1-162-924-11	s	CERAMIC 56PF 5% 50V [for J, UC]
C354	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V [for EK]
C355	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C356	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C357	1-126-205-11	s	ELECT 47uF 20% 6.3
C358	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C359	1-162-917-11	s	CERAMIC, CHIP 15PF 5% 50V [for EK]
C363	1-135-166-21	s	TANTALUM, CHIP 47uF 10% 10V
C365	1-126-205-11	s	ELECT 47uF 20% 6.3
C401	1-126-205-11	s	ELECT 47uF 20% 6.3
C402	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C403	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C404	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C405	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C406	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C407	1-126-205-11	s	ELECT 47uF 20% 6.3
C408	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C409	1-135-157-21	s	TANTALUM, CHIP 10uF 10% 6.3V
C410	1-162-959-11	s	CERAMIC 330PF 5% 50V
C411	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C412	1-107-826-11	s	CERAMIC 0.1uF 10% 16V
C413	1-107-826-11	s	CERAMIC 0.1uF 10% 16V
C414	1-164-315-11	s	CERAMIC 470PF 5% 50V
C415	1-162-917-11	s	CERAMIC, CHIP 15PF 5% 50V
C416	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C417	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V [for J, UC]
C417	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V [for EK]
C418	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C419	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C420	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C421	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C422	1-126-205-11	s	ELECT 47uF 20% 6.3
C423	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C424	1-107-826-11	s	CERAMIC 0.1uF 10% 16V

(VO-46/46A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C425	1-164-360-11	s	CERAMIC 0.1uF 16V
C427	1-126-205-11	s	ELECT 47uF 20% 6.3
C452	1-126-205-11	s	ELECT 47uF 20% 6.3
C453	1-126-205-11	s	ELECT 47uF 20% 6.3
C454	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C455	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C456	1-126-205-11	s	ELECT 47uF 20% 6.3
C457	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C458	1-107-826-11	s	CERAMIC 0.1uF 10% 16V
C459	1-107-826-11	s	CERAMIC 0.1uF 10% 16V
C460	1-126-205-11	s	ELECT 47uF 20% 6.3
C461	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C462	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C463	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C464	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C465	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C466	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C467	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C468	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C469	1-126-205-11	s	ELECT 47uF 20% 6.3
C470	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C471	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C500	1-126-206-11	s	ELECT 100uF 20% 6.3V
C501	1-126-206-11	s	ELECT 100uF 20% 6.3V
C502	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V [for J, UC]
C502	1-162-916-11	s	CERAMIC, CHIP 12PF 5% 50V [for EK]
C503	1-162-926-11	s	CERAMIC, CHIP 82PF 5% 50V [for J, UC]
C504	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C505	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C506	1-126-206-11	s	ELECT 100uF 20% 6.3V
C507	1-162-967-11	s	CERAMIC 0.0033uF 10% 50V
C508	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C509	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C510	1-107-826-11	s	CERAMIC 0.1uF 10% 16V
C512	1-104-923-11	s	MICA 180PF 0.25% 50V
C513	1-162-905-11	s	CERAMIC 1PF 0.25PF 50V
C515	1-135-167-21	s	TANTALUM, CHIP 68uF 20% 6.3V
C516	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C517	1-162-925-11	s	CERAMIC, CHIP 68PF 5% 50V
C518	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C519	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C520	1-135-157-21	s	TANTALUM, CHIP 10uF 10% 6.3V
C521	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C522	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C523	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C524	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C525	1-107-826-11	s	CERAMIC 0.1uF 10% 16V
C526	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C527	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C528	1-126-206-11	s	ELECT 100uF 20% 6.3V
C529	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C530	1-162-918-11	s	CERAMIC, CHIP 18PF 5% 50V
C531	1-164-386-11	s	CERAMIC 200PF 5% 50V
C600	1-164-360-11	s	CERAMIC 0.1uF 16V
C601	1-164-360-11	s	CERAMIC 0.1uF 16V
C603	1-164-360-11	s	CERAMIC 0.1uF 16V
C604	1-164-360-11	s	CERAMIC 0.1uF 16V

Please see page 13-40 for the part numbers of resistor that is not the parts list.

(VO-46/46A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C605	1-164-360-11	s	CERAMIC 0.1uF 16V
C606	1-164-360-11	s	CERAMIC 0.1uF 16V
C607	1-164-471-11	s	CERAMIC 680PF 5% 50V
C608	1-164-217-11	s	CERAMIC 150PF 5% 50V
C609	1-164-357-11	s	CERAMIC 1000PF 5% 50V
C610	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V [for EK]
C611	1-164-360-11	s	CERAMIC 0.1uF 16V
C612	1-164-360-11	s	CERAMIC 0.1uF 16V
C613	1-126-206-11	s	ELECT 100uF 20% 6.3V
C614	1-164-360-11	s	CERAMIC 0.1uF 16V
C615	1-126-206-11	s	ELECT 100uF 20% 6.3V
C616	1-162-916-11	s	CERAMIC, CHIP 12PF 5% 50V [for J, UC]
C650	1-126-205-11	s	ELECT 47uF 20% 6.3
C651	1-126-205-11	s	ELECT 47uF 20% 6.3
C652	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C653	1-162-957-11	s	CERAMIC 220PF 5% 50V
C654	1-164-315-11	s	CERAMIC 470PF 5% 50V
C655	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C656	1-164-315-11	s	CERAMIC 470PF 5% 50V
C657	1-164-315-11	s	CERAMIC 470PF 5% 50V
C658	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C659	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C660	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C661	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C662	1-164-217-11	s	CERAMIC 150PF 5% 50V
C663	1-164-217-11	s	CERAMIC 150PF 5% 50V
C664	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C700	1-126-204-11	s	ELECT 47uF 20% 16V
C701	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C702	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C703	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V [for J, UC]
C704	1-162-920-11	s	CERAMIC, CHIP 27PF 5% 50V [for EK]
C705	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C706	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C707	1-164-360-11	s	CERAMIC 0.1uF 16V
C708	1-162-916-11	s	CERAMIC, CHIP 12PF 5% 50V
C709	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V
C710	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C711	1-126-205-11	s	ELECT 47uF 20% 6.3
C712	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C713	1-164-360-11	s	CERAMIC 0.1uF 16V
C715	1-162-957-11	s	CERAMIC 220PF 5% 50V
C716	1-164-357-11	s	CERAMIC 1000PF 5% 50V
C717	1-164-360-11	s	CERAMIC 0.1uF 16V
C718	1-162-957-11	s	CERAMIC 220PF 5% 50V
C719	1-162-966-11	s	CERAMIC, CHIP 0.0022uF 10% 50V
C724	1-126-205-11	s	ELECT 47uF 20% 6.3
C725	1-126-205-11	s	ELECT 47uF 20% 6.3
C750	1-126-204-11	s	ELECT 47uF 20% 16V
C751	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C752	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C753	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C755	1-164-360-11	s	CERAMIC 0.1uF 16V
C756	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C757	1-164-360-11	s	CERAMIC 0.1uF 16V
C758	1-162-916-11	s	CERAMIC, CHIP 12PF 5% 50V
C759	1-162-921-11	s	CERAMIC, CHIP 33PF 5% 50V

(VO-46/46A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C760	1-164-360-11	s	CERAMIC 0.1uF 16V
C761	1-126-205-11	s	ELECT 47uF 20% 6.3V
C762	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C763	1-164-360-11	s	CERAMIC 0.1uF 16V
C764	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C800	1-126-206-11	s	ELECT 100uF 20% 6.3V
C801	1-162-957-11	s	CERAMIC 220PF 5% 50V
C802	1-162-916-11	s	CERAMIC, CHIP 12PF 5% 50V [for J, UC]
C802	1-162-918-11	s	CERAMIC, CHIP 18PF 5% 50V [for EK]
C803	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V [for J, UC]
C803	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V [for EK]
C804	1-162-917-11	s	CERAMIC, CHIP 15PF 5% 50V
C805	1-162-917-11	s	CERAMIC, CHIP 15PF 5% 50V
C806	1-135-161-21	s	TANTALUM, CHIP 22uF 10% 10V
C807	1-135-161-21	s	TANTALUM, CHIP 22uF 10% 10V
C808	1-135-155-21	s	TANTALUM, CHIP 4.7uF 10% 16V
C809	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V [for J, UC]
C809	1-165-176-11	s	CERAMIC CHIP 0.047uF 10% 16V [for EK]
C810	1-164-217-11	s	CERAMIC 150PF 5% 50V
C811	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C812	1-162-915-11	s	CERAMIC, CHIP 10PF 5PF 50V
C813	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C814	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C815	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C816	1-162-959-11	s	CERAMIC 330PF 5% 50V
C817	1-107-826-11	s	CERAMIC 0.1uF 10% 16V
C818	1-107-826-11	s	CERAMIC 0.1uF 10% 16V
C819	1-164-668-11	s	CERAMIC 510PF 5% 50V
C820	1-164-217-11	s	CERAMIC 150PF 5% 50V
C821	1-107-826-11	s	CERAMIC 0.1uF 10% 16V
C822	1-164-360-11	s	CERAMIC 0.1uF 16V
C823	1-164-357-11	s	CERAMIC 1000PF 5% 50V
C824	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C825	1-164-217-11	s	CERAMIC 150PF 5% 50V
C826	1-162-957-11	s	CERAMIC 220PF 5% 50V
C827	1-162-920-11	s	CERAMIC, CHIP 27PF 5% 50V
C828	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C829	1-107-826-11	s	CERAMIC 0.1uF 10% 16V
C830	1-162-917-11	s	CERAMIC, CHIP 15PF 5% 50V
C833	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C834	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C835	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C850	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C851	1-164-357-11	s	CERAMIC 1000PF 5% 50V
C852	1-164-357-11	s	CERAMIC 1000PF 5% 50V
C853	1-162-917-11	s	CERAMIC, CHIP 15PF 5% 50V [for J, UC]
C853	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V [for EK]
C854	1-164-357-11	s	CERAMIC 1000PF 5% 50V
C856	1-164-357-11	s	CERAMIC 1000PF 5% 50V
C857	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C858	1-162-959-11	s	CERAMIC 330PF 5% 50V
C859	1-164-357-11	s	CERAMIC 1000PF 5% 50V
C860	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C861	1-126-205-11	s	ELECT 47uF 20% 6.3
C862	1-164-227-11	s	CERAMIC 0.022uF 10% 25V

Please see page 13-40 for the part numbers of resistor that is not the parts list.

(VO-46/46A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C901	1-126-206-11	s	ELECT 100uF 20% 6.3V
C902	1-126-206-11	s	ELECT 100uF 20% 6.3V
C903	1-126-204-11	s	ELECT 47uF 20% 16V
C904	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
C905	1-126-204-11	s	ELECT 47uF 20% 16V
C906	1-164-227-11	s	CERAMIC 0.022uF 10% 25V
CN1	1-568-801-11	s	CONNECTOR, FPC (ZIF) 24P
CN2	1-566-526-11	s	CONNECTOR, 10P
CN3	1-564-005-11	o	CONNECTOR 6P, MALE
CN4	1-506-472-11	s	CONNECTOR, 7P, MALE
CN5	1-564-001-11	o	CONNECTOR, 2P, MALE
CN6	1-506-467-11	s	CONNECTOR, 2P, MALE
CV200	1-141-345-11	s	CAP, TRIMMER 40PF
CV600	1-141-322-11	s	CAP, VAR TRIMMER CHIP
D100	8-719-123-85	s	DIODE 1SS304
D400	8-719-821-39	s	DIODE 1SV160
D402	8-719-941-23	s	DIODE DA204U
D800	8-719-123-85	s	DIODE 1SS304
D801	8-719-123-85	s	DIODE 1SS304
D850	8-719-123-85	s	DIODE 1SS304
D851	8-719-123-85	s	DIODE 1SS304
D901	8-719-123-82	s	DIODE 1SS303
D902	8-719-123-85	s	DIODE 1SS304
FL300	1-236-125-22	s	FILTER, LOW-PASS [for J, UC]
FL300	1-239-313-11	s	FILTER, LOW-PASS [for EK]
FL350	1-236-125-22	s	FILTER, LOW-PASS [for J, UC]
FL350	1-239-313-11	s	FILTER, LOW-PASS [for EK]
FL500	1-236-126-12	s	FILTER, LOW PASS [for J, UC]
FL500	1-239-314-11	s	FILTER, LOW-PASS [for EK]
IC100	8-752-036-77	s	IC CXA1179N
IC101	8-759-300-71	s	IC MC14053BF
IC251	8-752-052-76	s	IC CXA1480Q
IC400	8-752-356-84	s	IC CXD2215AQ
IC401	8-759-239-58	s	IC TC74HC221AF
IC402	8-759-008-67	s	IC MC14066BF
IC403	8-759-030-16	s	IC MC34182M
IC404	8-759-100-94	s	IC UPC358G2
IC405	8-759-243-19	s	IC TC7SU04F
IC406	8-759-243-19	s	IC TC7SU04F
IC407	8-759-239-58	s	IC TC74HC221AF
IC408	8-759-239-58	s	IC TC74HC221AF
IC409	8-759-243-19	s	IC TC7SU04F
IC410	8-759-987-27	s	IC LM1881M
IC411	8-759-209-97	s	IC TC4S81F
IC450	8-752-334-55	s	IC CXD1175AM
IC451	8-752-334-55	s	IC CXD1175AM
IC452	8-752-329-28	s	IC CXD1151Q
IC453	8-752-334-64	s	IC CXD1171M
IC500	8-752-036-77	s	IC CXA1179N
IC650	8-759-209-15	s	IC TC4SU69F
IC651	8-759-209-15	s	IC TC4SU69F
IC700	8-759-112-53	s	IC UPC1663G
IC701	8-759-112-53	s	IC UPC1663G
IC702	8-759-977-69	s	IC CXD1357Q
IC800	8-759-230-99	s	IC TC74HC4053AF
IC801	8-752-002-99	s	IC CX20030

(VO-46/46A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
IC802	8-759-009-51	s	IC MC14538BF
IC900	8-759-209-15	s	IC TC4SU69F
IC902	8-759-209-90	s	IC TC4S71F
IC903	8-759-209-90	s	IC TC4S71F
IC904	8-759-300-71	s	IC MC14053BF
IC905	8-759-512-51	s	IC RH5RE50AA
IC906	8-759-209-15	s	IC TC4SU69F
L100	1-412-062-11	s	INDUCTOR CHIP 47uH
L103	1-410-383-31	s	INDUCTOR CHIP 15UH
L104	1-412-062-11	s	INDUCTOR CHIP 47uH
L105	1-410-391-11	s	INDUCTOR CHIP 68uH
L106	1-410-389-31	s	INDUCTOR CHIP 47uH
L107	1-410-393-11	s	INDUCTOR CHIP 100uH
L108	1-410-393-11	s	INDUCTOR CHIP 100uH
L200	1-410-393-11	s	INDUCTOR CHIP 100uH
L201	1-410-393-11	s	INDUCTOR CHIP 100uH
L251	1-412-062-11	s	INDUCTOR CHIP 47uH
L300	1-410-393-11	s	INDUCTOR CHIP 100uH
L301	1-410-393-11	s	INDUCTOR CHIP 100uH
L302	1-410-377-31	s	INDUCTOR CHIP 4.7uH
L350	1-410-393-11	s	INDUCTOR CHIP 100uH
L351	1-410-393-11	s	INDUCTOR CHIP 100uH
L352	1-410-377-31	s	INDUCTOR CHIP 4.7uH
L400	1-410-393-11	s	INDUCTOR CHIP 100uH
L401	1-410-393-11	s	INDUCTOR CHIP 100uH
L402	1-410-393-11	s	INDUCTOR CHIP 100uH
L450	1-410-393-11	s	INDUCTOR CHIP 100uH
L451	1-410-393-11	s	INDUCTOR CHIP 100uH
L452	1-410-393-11	s	INDUCTOR CHIP 100uH
L453	1-410-393-11	s	INDUCTOR CHIP 100uH
L500	1-412-062-11	s	INDUCTOR CHIP 47uH
L501	1-410-393-11	s	INDUCTOR CHIP 100uH
L502	1-410-389-31	s	INDUCTOR CHIP 47uH
L503	1-412-062-11	s	INDUCTOR CHIP 47uH
L504	1-410-393-11	s	INDUCTOR CHIP 100uH
L600	1-410-393-11	s	INDUCTOR CHIP 100uH
L601	1-410-393-11	s	INDUCTOR CHIP 100uH
L602	1-410-393-11	s	INDUCTOR CHIP 100uH
L650	1-410-393-11	s	INDUCTOR CHIP 100uH
L651	1-410-393-11	s	INDUCTOR CHIP 100uH
L652	1-412-282-41	s	INDUCTOR 470uH
L653	1-412-282-41	s	INDUCTOR 470uH
L700	1-410-393-11	s	INDUCTOR CHIP 100uH
L701	1-410-379-31	s	INDUCTOR CHIP 6.8uH
L702	1-410-393-11	s	INDUCTOR CHIP 100uH
L750	1-410-393-11	s	INDUCTOR CHIP 100uH
L751	1-410-379-31	s	INDUCTOR CHIP 6.8uH
L752	1-410-393-11	s	INDUCTOR CHIP 100uH
L800	1-410-393-11	s	INDUCTOR CHIP 100uH
L801	1-410-393-11	s	INDUCTOR CHIP 100uH
L802	1-410-385-11	s	INDUCTOR, CHIP 22uH [for J, UC]
L802	1-410-382-31	s	INDUCTOR CHIP 12UH [for EK]
L803	1-412-279-31	s	INDUCTOR 270uH
L850	1-410-393-11	s	INDUCTOR CHIP 100uH
L851	1-410-383-31	s	INDUCTOR CHIP 15UH [for J, UC]
L851	1-410-382-31	s	INDUCTOR CHIP 12UH [for EK]
LV400	1-409-984-21	s	COIL, VAR 8.2uH [for J, UC]
LV400	1-409-983-11	s	COIL, VAR 5.6uH [for EK]

Please see page 13-40 for the part numbers of resistor that is not the parts list.

(VO-46/46A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q101	8-729-117-32	s	TRANSISTOR 2SC4177
Q102	8-729-905-18	s	TRANSISTOR DTC144EU
Q103	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q104	8-729-117-32	s	TRANSISTOR 2SC4177
Q105	8-729-117-32	s	TRANSISTOR 2SC4177
Q106	8-729-117-32	s	TRANSISTOR 2SC4177
Q107	8-729-117-32	s	TRANSISTOR 2SC4177
Q108	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q109	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q110	8-729-117-32	s	TRANSISTOR 2SC4177
Q113	8-729-117-32	s	TRANSISTOR 2SC4177
Q114	8-729-117-32	s	TRANSISTOR 2SC4177
Q115	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q116	8-729-117-32	s	TRANSISTOR 2SC4177
Q117	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q200	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q201	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q202	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q207	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q212	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q213	8-729-905-12	s	TRANSISTOR DTA144EU
Q214	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q215	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q216	8-729-117-32	s	TRANSISTOR 2SC4177
Q217	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q218	8-729-117-32	s	TRANSISTOR 2SC4177
Q219	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q300	8-729-117-32	s	TRANSISTOR 2SC4177
Q301	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q302	8-729-117-32	s	TRANSISTOR 2SC4177
Q303	8-729-117-32	s	TRANSISTOR 2SC4177
Q304	8-729-118-58	s	TRANSISTOR 2SK852-X4
Q305	8-729-904-41	s	TRANSISTOR FMY3
Q306	8-729-117-32	s	TRANSISTOR 2SC4177
Q309	8-729-117-32	s	TRANSISTOR 2SC4177
Q350	8-729-117-32	s	TRANSISTOR 2SC4177
Q351	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q352	8-729-117-32	s	TRANSISTOR 2SC4177
Q353	8-729-117-32	s	TRANSISTOR 2SC4177
Q354	8-729-118-58	s	TRANSISTOR 2SK852-X4
Q355	8-729-904-41	s	TRANSISTOR FMY3
Q356	8-729-117-32	s	TRANSISTOR 2SC4177
Q359	8-729-117-32	s	TRANSISTOR 2SC4177
Q400	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q401	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q402	8-729-117-32	s	TRANSISTOR 2SC4177
Q500	8-729-117-32	s	TRANSISTOR 2SC4177
Q501	8-729-117-32	s	TRANSISTOR 2SC4177
Q502	8-729-117-32	s	TRANSISTOR 2SC4177
Q503	8-729-117-32	s	TRANSISTOR 2SC4177
Q504	8-729-117-32	s	TRANSISTOR 2SC4177
Q505	8-729-117-32	s	TRANSISTOR 2SC4177
Q506	8-729-905-18	s	TRANSISTOR DTC144EU
Q507	8-729-117-32	s	TRANSISTOR 2SC4177
Q508	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q509	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q510	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q600	8-729-117-73	s	TRANSISTOR 2SC4178-F14

(VO-46/46A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q601	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q602	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q607	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q612	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q613	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q614	8-729-905-12	s	TRANSISTOR DTA144EU
Q615	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q616	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q617	8-729-117-32	s	TRANSISTOR 2SC4177
Q618	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q619	8-729-117-32	s	TRANSISTOR 2SC4177
Q620	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q650	8-729-117-32	s	TRANSISTOR 2SC4177
Q651	8-729-117-32	s	TRANSISTOR 2SC4177
Q652	8-729-117-32	s	TRANSISTOR 2SC4177
Q653	8-729-117-32	s	TRANSISTOR 2SC4177
Q654	8-729-117-32	s	TRANSISTOR 2SC4177
Q700	8-729-118-58	s	TRANSISTOR 2SK852-X4
Q701	8-729-118-58	s	TRANSISTOR 2SK852-X4
Q702	8-729-118-58	s	TRANSISTOR 2SK852-X4
Q703	8-729-118-58	s	TRANSISTOR 2SK852-X4
Q704	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q705	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q706	8-729-117-32	s	TRANSISTOR 2SC4177
Q707	8-729-326-11	s	TRANSISTOR 2SC2611
Q708	8-729-905-12	s	TRANSISTOR DTA144EU
Q709	8-729-326-11	s	TRANSISTOR 2SC2611
Q710	8-729-326-11	s	TRANSISTOR 2SC2611
Q711	8-729-905-18	s	TRANSISTOR DTC144EU
Q750	8-729-118-58	s	TRANSISTOR 2SK852-X4
Q751	8-729-118-58	s	TRANSISTOR 2SK852-X4
Q752	8-729-118-58	s	TRANSISTOR 2SK852-X4
Q753	8-729-118-58	s	TRANSISTOR 2SK852-X4
Q754	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q755	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q756	8-729-117-32	s	TRANSISTOR 2SC4177
Q800	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q801	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q802	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q803	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q804	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q805	8-729-905-12	s	TRANSISTOR DTA144EU
Q806	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q807	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q808	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q809	8-729-905-18	s	TRANSISTOR DTC144EU
Q810	8-729-905-12	s	TRANSISTOR DTA144EU
Q811	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q812	8-729-905-18	s	TRANSISTOR DTC144EU
Q813	8-729-905-12	s	TRANSISTOR DTA144EU
Q814	8-729-905-18	s	TRANSISTOR DTC144EU
Q815	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q850	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q851	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q852	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q853	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q900	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q901	8-729-117-16	s	TRANSISTOR 2SA1611-M6
Q902	8-729-807-51	s	TRANSISTOR 2SD1623-S

Please see page 13-40 for the part numbers of resistor that is not the parts list.

(VO-46/46A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q903	8-729-807-51	s	TRANSISTOR 2SD1623-S
Q905	8-729-106-60	s	TRANSISTOR 2SB1115A
Q906	8-729-106-60	s	TRANSISTOR 2SB1115A
R102	1-218-688-11	s	METAL 680 0.50% 1/16W [for J, UC]
R102	1-218-692-11	s	METAL 1K 0.50% 1/16W [for EK]
R103	1-218-704-11	s	METAL 3.3K 0.50% 1/16W [for J, UC]
R103	1-218-692-11	s	METAL 1K 0.50% 1/16W [for EK]
R104	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R105	1-218-684-11	s	METAL 470 0.50% 1/16W
R106	1-218-694-11	s	METAL, CHIP 1.2K 0.50% 1/16W
R107	1-218-841-11	s	METAL, CHIP 560 0.50% 1/16W
R108	1-218-700-11	s	METAL 2.2K 0.50% 1/16W
R109	1-218-698-11	s	METAL 1.8K 0.50% 1/16W
R114	1-218-700-11	s	METAL 2.2K 0.50% 1/16W
R115	1-218-858-11	s	METAL CHIP 3K 0.50% 1/16W
R117	1-218-730-11	s	METAL, CHIP 39K 0.50% 1/16W
R118	1-218-704-11	s	METAL 3.3K 0.50% 1/16W
R119	1-218-716-11	s	METAL 10K 0.50% 1/16W
R121	1-218-692-11	s	METAL 1K 0.50% 1/16W
R122	1-218-722-11	s	METAL, CHIP 18K 0.50% 1/16W [for J, UC]
R122	1-218-881-11	s	METAL CHIP 27K 0.50% 1/16W [for EK]
R123	1-218-716-11	s	METAL 10K 0.50% 1/16W [for J, UC]
R123	1-218-722-11	s	METAL, CHIP 18K 0.50% 1/16W [for EK]
R124	1-218-184-11	s	METAL, CHIP 997 0.1% 1/16W
R125	1-218-922-11	s	METAL CHIP 3.26K 0.10% 1/16W
R126	1-218-679-91	s	METAL 300 0.50% 1/16W [for J, UC]
R126	1-218-851-11	s	METAL CHIP 1.5K 0.50% 1/16W [for EK]
R127	1-218-704-11	s	METAL 3.3K 0.50% 1/16W [for J, UC]
R127	1-218-837-11	s	METAL, CHIP 390 0.50% 1/16W [for EK]
R128	1-218-668-11	s	METAL 100 0.50% 1/16W
R129	1-218-668-11	s	METAL 100 0.50% 1/16W
R130	1-218-873-11	s	METAL, CHIP 12K 0.50% 1/16W
R131	1-218-724-11	s	METAL 22K 0.50% 1/16W [for J, UC]
R131	1-218-883-11	s	METAL 33K 0.50% 1/16W [for EK]
R132	1-218-684-11	s	METAL 470 0.50% 1/16W [for J, UC]
R132	1-218-692-11	s	METAL 1K 0.50% 1/16W [for EK]
R133	1-218-704-11	s	METAL 3.3K 0.50% 1/16W [for J, UC]
R133	1-218-680-11	s	METAL 330 0.50% 1/16W [for EK]
R134	1-218-842-11	s	METAL, CHIP 620 0.50% 1/16W [for J, UC]
R134	1-218-837-11	s	METAL, CHIP 390 0.50% 1/16W [for EK]
R136	1-218-679-91	s	METAL 300 0.50% 1/16W
R137	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W
R139	1-218-851-11	s	METAL CHIP 1.5K 0.50% 1/16W
R141	1-218-708-11	s	METAL 4.7K 0.50% 1/16W [for J, UC]
R141	1-218-706-11	s	METAL 3.9K 0.50% 1/16W [for EK]
R142	1-218-724-11	s	METAL 22K 0.50% 1/16W
R143	1-218-724-11	s	METAL 22K 0.50% 1/16W [for J, UC]
R143	1-218-723-11	s	METAL 20K 0.50% 1/16W [for EK]
R144	1-218-735-11	s	METAL 62K 0.50% 1/16W

(VO-46/46A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R145	1-218-716-11	s	METAL 10K 0.50% 1/16W
R147	1-218-873-11	s	METAL, CHIP 12K 0.50% 1/16W
R148	1-218-883-11	s	METAL 33K 0.50% 1/16W
R149	1-218-684-11	s	METAL 470 0.50% 1/16W
R151	1-218-699-11	s	METAL, CHIP 2K 0.50% 1/16W
R153	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W
R155	1-218-704-11	s	METAL 3.3K 0.50% 1/16W
R157	1-218-716-11	s	METAL 10K 0.50% 1/16W
R158	1-218-716-11	s	METAL 10K 0.50% 1/16W
R159	1-218-722-11	s	METAL, CHIP 18K 0.50% 1/16W
R162	1-218-727-11	s	METAL 30K 0.50% 1/16W
R163	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R164	1-218-720-11	s	METAL 15K 0.50% 1/16W
R165	1-218-722-11	s	METAL, CHIP 18K 0.50% 1/16W
R168	1-218-699-11	s	METAL, CHIP 2K 0.50% 1/16W
R170	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W
R172	1-218-699-11	s	METAL, CHIP 2K 0.50% 1/16W
R186	1-218-700-11	s	METAL 2.2K 0.50% 1/16W
R202	1-218-833-11	s	METAL, CHIP 270 0.50% 1/16W
R203	1-218-668-11	s	METAL 100 0.50% 1/16W [for EK]
R204	1-218-692-11	s	METAL 1K 0.50% 1/16W
R208	1-218-684-11	s	METAL 470 0.50% 1/16W
R209	1-218-684-11	s	METAL 470 0.50% 1/16W
R218	1-218-716-11	s	METAL 10K 0.50% 1/16W
R219	1-218-730-11	s	METAL, CHIP 39K 0.50% 1/16W
R220	1-218-680-11	s	METAL 330 0.50% 1/16W [for J, UC]
R220	1-218-684-11	s	METAL 470 0.50% 1/16W [for EK]
R223	1-218-724-11	s	METAL 22K 0.50% 1/16W
R232	1-218-684-11	s	METAL 470 0.50% 1/16W
R235	1-218-692-11	s	METAL 1K 0.50% 1/16W
R251	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R252	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R253	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R254	1-218-724-11	s	METAL 22K 0.50% 1/16W
R255	1-218-724-11	s	METAL 22K 0.50% 1/16W
R256	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R257	1-218-858-11	s	METAL CHIP 3K 0.50% 1/16W
R258	1-218-716-11	s	METAL 10K 0.50% 1/16W
R259	1-218-716-11	s	METAL 10K 0.50% 1/16W
R260	1-218-676-11	s	METAL 220 0.50% 1/16W
R261	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W
R262	1-218-724-11	s	METAL 22K 0.50% 1/16W
R263	1-218-716-11	s	METAL 10K 0.50% 1/16W
R264	1-218-720-11	s	METAL 15K 0.50% 1/16W [for J, UC]
R264	1-218-873-11	s	METAL, CHIP 12K 0.50% 1/16W [for EK]
R265	1-218-724-11	s	METAL 22K 0.50% 1/16W
R300	1-218-692-11	s	METAL 1K 0.50% 1/16W
R301	1-218-716-11	s	METAL 10K 0.50% 1/16W [for J, UC]
R301	1-218-729-11	s	METAL 36K 0.50% 1/16W [for EK]
R302	1-218-692-11	s	METAL 1K 0.50% 1/16W
R305	1-218-684-11	s	METAL 470 0.50% 1/16W
R307	1-218-680-11	s	METAL 330 0.50% 1/16W
R308	1-218-858-11	s	METAL CHIP 3K 0.50% 1/16W
R312	1-218-870-11	s	METAL, CHIP 9.1K 0.50% 1/16W
R313	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R350	1-218-692-11	s	METAL 1K 0.50% 1/16W
R351	1-218-716-11	s	METAL 10K 0.50% 1/16W [for J, UC]
R351	1-218-729-11	s	METAL 36K 0.50% 1/16W [for EK]

Please see page 13-40 for the part numbers of resistor that is not the parts list.

Ref. No. or Q'ty	Part No.	SP	Description
R352	1-218-692-11	s	METAL 1K 0.50% 1/16W
R355	1-218-692-11	s	METAL 1K 0.50% 1/16W
R357	1-218-680-11	s	METAL 330 0.50% 1/16W
R358	1-218-858-11	s	METAL CHIP 3K 0.50% 1/16W
R362	1-218-870-11	s	METAL, CHIP 9.1K 0.50% 1/16W
R363	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R401	1-218-732-11	s	METAL 47K 0.50% 1/16W
R407	1-218-668-11	s	METAL 100 0.50% 1/16W
R408	1-218-873-11	s	METAL, CHIP 12K 0.50% 1/16W
R409	1-218-706-11	s	METAL 3.9K 0.50% 1/16W
R410	1-218-684-11	s	METAL 470 0.50% 1/16W
R411	1-218-710-11	s	METAL, CHIP 5.6K 0.50% 1/16W
R412	1-218-684-11	s	METAL 470 0.50% 1/16W
R413	1-218-874-11	s	METAL CHIP 13K 0.50% 1/16W
R414	1-218-732-11	s	METAL 47K 0.50% 1/16W
R415	1-218-881-11	s	METAL CHIP 27K 0.50% 1/16W
R416	1-218-700-11	s	METAL 2.2K 0.50% 1/16W
R418	1-218-716-11	s	METAL 10K 0.50% 1/16W
R419	1-218-676-11	s	METAL 220 0.50% 1/16W
R420	1-218-733-11	s	METAL 51K 0.50% 1/16W
R421	1-218-735-11	s	METAL 62K 0.50% 1/16W
R422	1-218-727-11	s	METAL 30K 0.50% 1/16W [for J, UC]
R422	1-218-724-11	s	METAL 22K 0.50% 1/16W [for EK]
R423	1-218-724-11	s	METAL 22K 0.50% 1/16W [for J, UC]
R423	1-218-881-11	s	METAL CHIP 27K 0.50% 1/16W [for EK]
R425	1-218-698-11	s	METAL 1.8K 0.50% 1/16W [for J, UC]
R425	1-218-700-11	s	METAL 2.2K 0.50% 1/16W [for EK]
R427	1-218-851-11	s	METAL CHIP 1.5K 0.50% 1/16W [for J, UC]
R427	1-218-870-11	s	METAL, CHIP 9.1K 0.50% 1/16W [for EK]
R428	1-218-706-11	s	METAL 3.9K 0.50% 1/16W [for J, UC]
R450	1-218-732-11	s	METAL 47K 0.50% 1/16W
R451	1-218-732-11	s	METAL 47K 0.50% 1/16W
R452	1-218-704-11	s	METAL 3.3K 0.50% 1/16W [for J, UC]
R452	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W [for EK]
R453	1-218-883-11	s	METAL 33K 0.50% 1/16W
R454	1-218-724-11	s	METAL 22K 0.50% 1/16W
R500	1-218-676-11	s	METAL 220 0.50% 1/16W
R502	1-218-684-11	s	METAL 470 0.50% 1/16W
R503	1-218-870-11	s	METAL, CHIP 9.1K 0.50% 1/16W [for J, UC]
R503	1-218-707-11	s	METAL 4.3K 0.50% 1/16W [for EK]
R504	1-218-866-11	s	METAL CHIP 6.2K 0.50% 1/16W [for J, UC]
R504	1-218-710-11	s	METAL, CHIP 5.6K 0.50% 1/16W [for EK]
R505	1-218-694-11	s	METAL, CHIP 1.2K 0.50% 1/16W
R506	1-218-730-11	s	METAL, CHIP 39K 0.50% 1/16W
R507	1-218-684-11	s	METAL 470 0.50% 1/16W
R508	1-218-700-11	s	METAL 2.2K 0.50% 1/16W
R509	1-218-698-11	s	METAL 1.8K 0.50% 1/16W
R512	1-218-700-11	s	METAL 2.2K 0.50% 1/16W
R513	1-218-705-11	s	METAL 3.6K 0.50% 1/16W [for J, UC]
R513	1-218-700-11	s	METAL 2.2K 0.50% 1/16W [for EK]

Ref. No. or Q'ty	Part No.	SP	Description
R514	1-218-704-11	s	METAL 3.3K 0.50% 1/16W
R515	1-218-716-11	s	METAL 10K 0.50% 1/16W
R516	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W
R519	1-218-858-11	s	METAL CHIP 3K 0.50% 1/16W
R520	1-218-692-11	s	METAL 1K 0.50% 1/16W
R522	1-218-184-11	s	METAL, CHIP 997 0.1% 1/16W
R525	1-218-922-11	s	METAL CHIP 3.26K 0.10% 1/16W
R526	1-218-851-11	s	METAL CHIP 1.5K 0.50% 1/16W [for J, UC]
R526	1-218-699-11	s	METAL, CHIP 2K 0.50% 1/16W [for EK]
R527	1-218-677-11	s	METAL 240 0.50% 1/16W
R529	1-218-725-11	s	METAL 24K 0.50% 1/16W [for J, UC]
R529	1-218-881-11	s	METAL CHIP 27K 0.50% 1/16W [for EK]
R530	1-218-724-11	s	METAL 22K 0.50% 1/16W [for J, UC]
R530	1-218-722-11	s	METAL, CHIP 18K 0.50% 1/16W [for EK]
R531	1-218-668-11	s	METAL 100 0.50% 1/16W
R533	1-218-692-11	s	METAL 1K 0.50% 1/16W
R534	1-218-720-11	s	METAL 15K 0.50% 1/16W
R535	1-218-883-11	s	METAL 33K 0.50% 1/16W
R536	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W [for J, UC]
R536	1-218-704-11	s	METAL 3.3K 0.50% 1/16W [for EK]
R538	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W
R540	1-218-851-11	s	METAL CHIP 1.5K 0.50% 1/16W
R541	1-218-704-11	s	METAL 3.3K 0.50% 1/16W
R543	1-218-710-11	s	METAL, CHIP 5.6K 0.50% 1/16W [for J, UC]
R543	1-218-864-11	s	METAL CHIP 5.1K 0.50% 1/16W [for EK]
R544	1-218-724-11	s	METAL 22K 0.50% 1/16W
R545	1-218-716-11	s	METAL 10K 0.50% 1/16W
R546	1-218-722-11	s	METAL, CHIP 18K 0.50% 1/16W [for J, UC]
R546	1-218-724-11	s	METAL 22K 0.50% 1/16W [for EK]
R547	1-218-716-11	s	METAL 10K 0.50% 1/16W
R548	1-218-735-11	s	METAL 62K 0.50% 1/16W
R549	1-218-716-11	s	METAL 10K 0.50% 1/16W
R551	1-218-720-11	s	METAL 15K 0.50% 1/16W
R552	1-218-727-11	s	METAL 30K 0.50% 1/16W
R553	1-218-716-11	s	METAL 10K 0.50% 1/16W
R554	1-218-883-11	s	METAL 33K 0.50% 1/16W
R555	1-218-684-11	s	METAL 470 0.50% 1/16W
R556	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R558	1-218-720-11	s	METAL 15K 0.50% 1/16W
R559	1-218-722-11	s	METAL, CHIP 18K 0.50% 1/16W
R560	1-218-858-11	s	METAL CHIP 3K 0.50% 1/16W [for J, UC]
R560	1-218-688-11	s	METAL 680 0.50% 1/16W [for EK]
R561	1-218-851-11	s	METAL CHIP 1.5K 0.50% 1/16W [for J, UC]
R561	1-218-684-11	s	METAL 470 0.50% 1/16W [for EK]
R562	1-218-692-11	s	METAL 1K 0.50% 1/16W [for J, UC]
R562	1-218-700-11	s	METAL 2.2K 0.50% 1/16W [for EK]
R563	1-218-694-11	s	METAL, CHIP 1.2K 0.50% 1/16W [for J, UC]
R563	1-218-692-11	s	METAL 1K 0.50% 1/16W [for EK]
R564	1-218-700-11	s	METAL 2.2K 0.50% 1/16W
R565	1-218-700-11	s	METAL 2.2K 0.50% 1/16W [for J, UC]

Please see page 13-40 for the part numbers of resistor that is not the parts list.

(VO-46/46A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R565	1-218-698-11	s	METAL 1.8K 0.50% 1/16W [for EK]
R568	1-218-840-11	s	METAL, CHIP 510 0.50% 1/16W [for J, UC]
R568	1-218-676-11	s	METAL 220 0.50% 1/16W [for EK]
R574	1-218-692-11	s	METAL 1K 0.50% 1/16W [for EK]
R601	1-218-684-11	s	METAL 470 0.50% 1/16W
R602	1-218-708-11	s	METAL 4.7K 0.50% 1/16W [for J, UC]
R603	1-218-692-11	s	METAL 1K 0.50% 1/16W
R606	1-218-684-11	s	METAL 470 0.50% 1/16W [for J, UC]
R606	1-218-692-11	s	METAL 1K 0.50% 1/16W [for EK]
R608	1-218-837-11	s	METAL, CHIP 390 0.50% 1/16W
R616	1-218-716-11	s	METAL 10K 0.50% 1/16W
R617	1-218-730-11	s	METAL, CHIP 39K 0.50% 1/16W
R619	1-218-688-11	s	METAL 680 0.50% 1/16W [for J, UC]
R619	1-218-841-11	s	METAL, CHIP 560 0.50% 1/16W [for EK]
R621	1-218-724-11	s	METAL 22K 0.50% 1/16W
R630	1-218-840-11	s	METAL, CHIP 510 0.50% 1/16W
R631	1-218-840-11	s	METAL, CHIP 510 0.50% 1/16W
R632	1-218-679-91	s	METAL 300 0.50% 1/16W
R633	1-218-692-11	s	METAL 1K 0.50% 1/16W
R635	1-218-838-11	s	METAL, CHIP 430 0.50% 1/16W [for J, UC]
R635	1-218-680-11	s	METAL 330 0.50% 1/16W [for EK]
R636	1-218-851-11	s	METAL CHIP 1.5K 0.50% 1/16W
R662	1-218-897-11	s	METAL CHIP 120K 0.50% 1/16W
R668	1-218-692-11	s	METAL 1K 0.50% 1/16W
R670	1-218-694-11	s	METAL, CHIP 1.2K 0.50% 1/16W
R702	1-218-668-11	s	METAL 100 0.50% 1/16W
R703	1-218-668-11	s	METAL 100 0.50% 1/16W
R704	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R705	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R708	1-218-708-11	s	METAL 4.7K 0.50% 1/16W [for J, UC]
R708	1-218-694-11	s	METAL, CHIP 1.2K 0.50% 1/16W [for EK]
R709	1-218-676-11	s	METAL 220 0.50% 1/16W
R716	1-218-692-11	s	METAL 1K 0.50% 1/16W
R717	1-218-716-11	s	METAL 10K 0.50% 1/16W
R718	1-218-684-11	s	METAL 470 0.50% 1/16W
R720	1-218-677-11	s	METAL 240 0.50% 1/16W [for J, UC]
R720	1-218-841-11	s	METAL, CHIP 560 0.50% 1/16W [for EK]
R721	1-218-694-11	s	METAL, CHIP 1.2K 0.50% 1/16W [for J, UC]
R721	1-218-846-11	s	METAL CHIP 910 0.50% 1/16W [for EK]
R722	1-218-684-11	s	METAL 470 0.50% 1/16W
R752	1-218-668-11	s	METAL 100 0.50% 1/16W
R753	1-218-668-11	s	METAL 100 0.50% 1/16W
R754	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R755	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R758	1-218-704-11	s	METAL 3.3K 0.50% 1/16W [for EK]
R759	1-218-676-11	s	METAL 220 0.50% 1/16W
R766	1-218-692-11	s	METAL 1K 0.50% 1/16W
R767	1-218-716-11	s	METAL 10K 0.50% 1/16W
R768	1-218-684-11	s	METAL 470 0.50% 1/16W
R772	1-218-684-11	s	METAL 470 0.50% 1/16W
R800	1-218-668-11	s	METAL 100 0.50% 1/16W
R801	1-218-716-11	s	METAL 10K 0.50% 1/16W

(VO-46/46A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R802	1-218-716-11	s	METAL 10K 0.50% 1/16W
R803	1-218-710-11	s	METAL, CHIP 5.6K 0.50% 1/16W [for EK]
R804	1-218-842-11	s	METAL, CHIP 620 0.50% 1/16W [for J, UC]
R804	1-218-684-11	s	METAL 470 0.50% 1/16W [for EK]
R805	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R806	1-218-706-11	s	METAL 3.9K 0.50% 1/16W
R807	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R808	1-218-704-11	s	METAL 3.3K 0.50% 1/16W
R810	1-218-851-11	s	METAL CHIP 1.5K 0.50% 1/16W
R812	1-218-706-11	s	METAL 3.9K 0.50% 1/16W
R813	1-218-724-11	s	METAL 22K 0.50% 1/16W
R814	1-218-716-11	s	METAL 10K 0.50% 1/16W
R817	1-218-716-11	s	METAL 10K 0.50% 1/16W
R819	1-218-704-11	s	METAL 3.3K 0.50% 1/16W
R821	1-218-724-11	s	METAL 22K 0.50% 1/16W
R822	1-218-724-11	s	METAL 22K 0.50% 1/16W
R823	1-218-684-11	s	METAL 470 0.50% 1/16W
R824	1-218-676-11	s	METAL 220 0.50% 1/16W
R825	1-218-684-11	s	METAL 470 0.50% 1/16W
R827	1-218-724-11	s	METAL 22K 0.50% 1/16W
R828	1-218-883-11	s	METAL 33K 0.50% 1/16W
R829	1-218-743-11	s	METAL 130K 0.50% 1/16W [for EK]
R830	1-218-873-11	s	METAL, CHIP 12K 0.50% 1/16W
R832	1-218-716-11	s	METAL 10K 0.50% 1/16W
R833	1-218-724-11	s	METAL 22K 0.50% 1/16W
R834	1-218-732-11	s	METAL 47K 0.50% 1/16W
R836	1-218-873-11	s	METAL, CHIP 12K 0.50% 1/16W
R837	1-218-716-11	s	METAL 10K 0.50% 1/16W
R839	1-218-716-11	s	METAL 10K 0.50% 1/16W
R840	1-218-873-11	s	METAL, CHIP 12K 0.50% 1/16W
R842	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R843	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R850	1-218-680-11	s	METAL 330 0.50% 1/16W
R851	1-218-704-11	s	METAL 3.3K 0.50% 1/16W
R853	1-218-692-11	s	METAL 1K 0.50% 1/16W [for EK]
R854	1-218-716-11	s	METAL 10K 0.50% 1/16W [for J, UC]
R856	1-218-716-11	s	METAL 10K 0.50% 1/16W
R857	1-218-851-11	s	METAL CHIP 1.5K 0.50% 1/16W
R859	1-218-668-11	s	METAL 100 0.50% 1/16W
R861	1-218-732-11	s	METAL 47K 0.50% 1/16W
R863	1-218-708-11	s	METAL 4.7K 0.50% 1/16W
R864	1-218-724-11	s	METAL 22K 0.50% 1/16W
R904	1-218-732-11	s	METAL 47K 0.50% 1/16W
R905	1-218-732-11	s	METAL 47K 0.50% 1/16W
R906	1-218-732-11	s	METAL 47K 0.50% 1/16W
R907	1-218-732-11	s	METAL 47K 0.50% 1/16W
R914	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W
R915	1-218-702-11	s	METAL, CHIP 2.7K 0.50% 1/16W
RV100	1-238-086-11	s	RES, ADJ METAL 470
RV102	1-238-089-11	s	RES, ADJ, 4.7K
RV103	1-238-088-11	s	RES, ADJ, 2.2K
RV104	1-238-088-11	s	RES, ADJ, 2.2K
RV105	1-238-088-11	s	RES, ADJ, 2.2K
RV200	1-238-089-11	s	RES, ADJ, 4.7K
RV251	1-238-091-11	s	RES, ADJ METAL 22K
RV300	1-238-087-11	s	RES, ADJ, 1K
RV301	1-238-087-11	s	RES, ADJ, 1K

Please see page 13-40 for the part numbers of resistor that is not the parts list.

(VO-46/46A BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
RV302	1-238-088-11	s	RES, ADJ, 2.2K
RV351	1-238-087-11	s	RES, ADJ, 1K
RV352	1-238-088-11	s	RES, ADJ, 2.2K
RV401	1-238-091-11	s	RES, ADJ METAL 22K [for J, UC]
RV401	1-238-090-11	s	RES, ADJ, 10K [for EK]
RV450	1-238-091-11	s	RES, ADJ METAL 22K
RV500	1-238-088-11	s	RES, ADJ, 2.2K
RV502	1-238-089-11	s	RES, ADJ, 4.7K
RV505	1-238-089-11	s	RES, ADJ, 4.7K
RV506	1-238-088-11	s	RES, ADJ, 2.2K
RV507	1-238-088-11	s	RES, ADJ, 2.2K
RV600	1-238-089-11	s	RES, ADJ, 4.7K
RV700	1-238-088-11	s	RES, ADJ, 2.2K
RV701	1-238-088-11	s	RES, ADJ, 2.2K
RV702	1-238-088-11	s	RES, ADJ, 2.2K
RV703	1-238-088-11	s	RES, ADJ, 2.2K
RV750	1-238-088-11	s	RES, ADJ, 2.2K
RV751	1-238-088-11	s	RES, ADJ, 2.2K
RV752	1-238-088-11	s	RES, ADJ, 2.2K
RV753	1-238-088-11	s	RES, ADJ, 2.2K
RV850	1-238-240-11	s	RES, ADJ METAL 220 [for J, UC]
RV850	1-238-087-11	s	RES, ADJ, 1K [for EK]
S700	1-571-275-31	s	SWITCH, SLIDE
SP200	1-566-388-11	s	CONNECTOR, 8P, MALE
SP600	1-566-388-11	s	CONNECTOR, 8P, MALE
SP650	1-566-388-11	s	CONNECTOR, 8P, MALE
SS200	1-565-413-11	o	PLUG, SHORTING
SS600	1-565-413-11	o	PLUG, SHORTING
SS650	1-565-413-11	o	PLUG, SHORTING
TH400	1-809-308-21	s	THERMISTER (CHIP)
X400	1-760-109-21	s	VIBRATOR, CRYSTAL
X650	1-579-412-11	s	RESONATOR, CERAMIC 310KHz
X651	1-579-413-11	s	RESONATOR, CERAMIC 540KHz

FRAME

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-547-463-11	o	FILTER UNIT, OPTICAL
1pc	1-547-463-21	o	FILTER UNIT, OPTICAL
1pc	1-651-202-11	o	WIRE, FLIXIBLE CARD (FL-160)
1pc	1-765-131-11	s	WIRE, FLEXIBLE CARD 10P (KY-SS)
1pc	1-948-710-11	o	HARNESS (TAPE TOP)
1pc	1-953-152-12	o	HARNESS, SUB (SS-CN)
1pc	1-953-153-11	o	HARNESS, SUB (MB-CN)
1pc	1-953-154-12	o	HARNESS, SUB (TC-SW)
1pc	1-953-163-12	o	HARNESS, SUB (VO-CN)
1pc	1-949-936-11	o	HARNESS (SW-4)
1pc	8-745-001-00	s	DM-211A
C201	1-161-051-00	s	CERAMIC 0.01uF 10% 50V
C202	1-161-051-00	s	CERAMIC 0.01uF 10% 50V
C203	1-161-051-00	s	CERAMIC 0.01uF 10% 50V
C204	1-161-051-00	s	CERAMIC 0.01uF 10% 50V
C205	1-161-051-00	s	CERAMIC 0.01uF 10% 50V
CN1F (to SW-656 board)			
	1-569-618-11	o	HOUSING, 3P
	1-565-977-11	s	CONTACT, FEMALE AWG 28-32
CN2F (to CN-935 board)			
	1-569-200-11	o	HOUSING, 7P
	1-569-193-11	s	CONTACT, AWG24-30
CN3F (to TC-86/86A board)			
	1-569-619-11	o	HOUSING, CONNECTOR 4P
	1-565-977-11	s	CONTACT, FEMALE AWG 28-32
CN3F (to VO-46/46A board)			
	1-569-199-11	o	PLUG HOUSING, 6P
	1-569-191-11	o	CONTACT, AWG22-26
	1-569-193-11	s	CONTACT, AWG24-30
CN4F (to VO-46/46A board)			
	1-569-200-11	o	HOUSING, 7P
	1-569-193-11	s	CONTACT, AWG24-30
CN5F (to VO-46/46A board)			
	1-569-195-11	o	HOUSING, 2P
	1-569-191-11	o	CONTACT, AWG22-26
CN6F (to VO-46/46A board)			
	1-569-195-31	o	HOUSING, 2P
	1-569-191-11	o	CONTACT, AWG22-26
CN19F (to MB-530(N)/530(P) board)			
	1-569-195-11	o	HOUSING, CONNECTOR 2P
	1-569-191-11	o	CONTACT, AWG22-26
	1-569-193-11	s	CONTACT, AWG24-30
CN21F (to MB-530(N)/530(P) board)			
	1-569-201-11	o	HOUSING, 8P
	1-569-191-11	o	CONTACT, AWG22-26
	1-569-193-11	s	CONTACT, AWG24-30
CN22F (to MB-530(N)/530(P) board)			
	1-569-199-11	o	PLUG HOUSING, 6P
	1-569-193-11	s	CONTACT, AWG24-30
CN23F (to MB-506 board)			
	1-561-514-00	o	HOUSING, ILG 2P FEMALE
	1-560-372-00	o	CONTACT, AWG22-28
CN24F (to MB-506 board)			
	1-561-516-00	o	HOUSINT, ILG 4P
	1-560-372-00	o	CONTACT, AWG22-28
CN25F (to MB-506 board)			
	1-561-515-00	o	HOUSING, ILG 3P FEMALE
	1-560-372-00	o	CONTACT, AWG22-28
CN26F (to MB-530(N)/530(P) board)			
	1-569-203-11	o	HOUSING, CONNECTOR 10P
	1-569-193-11	s	CONTACT, AWG24-30
CN27F (to MB-530(N)/530(P) board)			
	1-569-205-11	o	PLUG HOUSING, 12P
	1-569-191-11	o	CONTACT, AWG22-26

(FRAME)

Ref. No. or Q'ty	Part No.	SP	Description
	1-569-193-11	s	CONTACT, AWG24-30
CN28F (to MB-530(N)/530(P) board)			
	1-561-518-00	o	HOUSING, ILG 6P, FEMALE
	1-506-740-11	o	CONTACT, ILG FEMALE AWG22-28
CN29F (to MB-506 board)			
	1-561-518-00	o	HOUSING, ILG 6P, FEMALE
	1-506-740-11	o	CONTACT, ILG FEMALE AWG22-28
CN101F (to TC-86/86A board)			
	1-569-618-11	o	HOUSING, 3P
	1-565-977-11	s	CONTACT, FEMALE AWG 28-32
CN201F (to TC-86/86A board)			
	1-569-618-11	o	HOUSING, CONNECTOR 3P
	1-565-977-11	s	CONTACT, FEMALE AWG 28-32
CN222F (to ANTON)			
	1-695-595-21	s	HOUSING, 3P
	1-695-596-11	s	PIN, CONTACT (ZM) AWG28-30
CN308F (to SS-57/57A board)			
	1-569-195-11	o	HOUSING, 2P
	1-569-193-11	s	CONTACT, AWG24-30
CN601F (to DR-254 board)			
	1-569-205-11	o	PLUG HOUSING, 12P
	1-569-191-11	o	CONTACT, AWG22-26
	1-569-193-11	s	CONTACT, AWG24-30
CN703F (to TC-86/86A board)			
	1-569-617-11	o	HOUSING, CONNECTOR 2P
	1-565-977-11	s	CONTACT, FEMALE AWG 28-32
CN101	1-562-221-21	s	CONNECTOR, 12P, FEMALE "LENS"
CN102	1-949-929-11	o	HARNESS (LENS-1)
CN103	1-561-320-00	s	SOCKET, DIN 8P "VF"
CN104	1-509-891-00	s	CONNECTOR, BNC, "VIDEO OUT"
CN105	1-562-244-00	o	CONNECTOR, 26P, MALE "VTR/CCU/CMA"
CN201	1-564-603-11	s	CONNECTOR 4P MALE "DC IN"
CN202	1-509-184-51	s	CONNECTOR, 3P FEMALE "MIC/LINE 1 IN"
CN203	1-509-184-51	s	CONNECTOR, 3P FEMALE "MIC/LINE 2 IN"
CS201	1-810-462-11	s	SENSOR, DEW CONDENSATION
FB101	1-543-751-11	o	CORE (TROIDAL)
FB102	1-543-762-11	s	BEAD, FERRITE
FB202	1-500-111-11	s	CORE
FB203	1-543-786-11	s	CLAMP, SLEEVE FERRITE
H201	8-825-560-41	s	HEAD, CTL RS-253-21
H202	8-825-772-62	s	HEAD, ERASE EF291-21A
H203	8-825-779-51	s	HEAD, AU PS244-2103fo
L201	1-543-316-21	s	HEAD, SENSING "TAPE TOP SENSOR"
M201	1-698-346-11	s	MOTOR, DC (LOADING) "THREADING"
M202	1-698-345-11	s	MOTOR, DC (CAPSTAN)
S101	1-554-486-00	s	SWITCH, TOGGLE "WHT/BLK"
S201	1-571-367-11	s	SWITCH, TOGGLE "POWER SW"
SP001	1-503-854-11	s	SPEAKER (3.6CM) "EAR SPEAKER"

PACKING MATERIALS & SUPPLIED ACCESSORIES

Ref. No. or Q'ty	Part No.	SP	Description
1pc	3-185-718-01	o	INDIVIDUAL CARTON (for UVW-100PK)
1pc	3-185-719-01	o	INDIVIDUAL CARTON (for UVW-100PL)
1pc	3-184-852-01	o	INDIVIDUAL CARTON (for UVW-100L)
1pc	3-184-853-01	o	INDIVIDUAL CARTON (for UVW-100K)
1pc	3-184-854-02	o	CUSHION
1pc	3-679-069-01	o	COVER, SIDE CONNECTOR
1pc	3-698-917-04	o	BELT, SHOULDER
1pc	3-758-227-01	o	MANUAL, INSTRUCTION (JAPANESE)
1pc	3-758-227-21	o	MANUAL, INSTRUCTION (ENGLISH)
1pc	3-758-227-31	o	MANUAL, INSTRUCTION (FRENCH)
1pc	3-758-227-41	o	MANUAL, INSTRUCTION (GERMAN)
1pc	3-758-227-51	o	MANUAL, INSTRUCTION (ITALIAN)
1pc	3-758-227-61	o	MANUAL, INSTRUCTION (CHINESE)
1pc	3-764-889-01	o	CHART, ADJUSTMENT

13-4.OPTIONAL FIXTURE

Part No.	SP	Description
J-6001-820-A	o	DRUM ECCENTRICITY GAUGE (3)
J-6001-830-A	o	DRUM ECCENTRICITY GAUGE (2)
J-6026-100-A	o	RESOLUTION CHART
J-6026-130-A	o	GRAY SCALE CHART
J-6029-140-A	o	PATTERN BOX, PTB-500
J-6080-003-E	o	FWD BACK TENSION MEASUREMENT CASSETTE
J-6080-029-A	o	ADJUSTMENT MIRROR
J-6086-570-A	o	PLATE, PARALLEL
J-6087-000-A	o	DRUM ECCENTRICITY GAUGE (5)
J-6152-450-A	o	WIRE CLEARANCE CHECK GAUGE
J-6321-500-A	o	TAPE GUIDE ADJUSTMENT DRIVER
J-6321-880-A	o	CASSETTE DUMMY COVER
J-6325-110-A	o	TORQUE DRIVER BIT(FOR M1.4)
J-6325-360-B	o	FLATNESS CHECK TOOL
J-6325-380-A	o	TORQUE DRIVER BIT(FOR M2)
J-6325-400-A	o	TORQUE DRIVER (FOR 3Kg)
J-6325-530-A	o	DRUM ECCENTRICITY GAUGE (6)
J-6326-120-A	o	HEXAGON BIT
J-6391-180-A	o	EXTENSION BOARD, EX-337
7-661-018-18	o	OIL
7-662-010-04	o	GREASE SGL-505(20g)
7-700-736-05	o	L-SHAPED HEXAGON WRENCH(d=1.5mm)
7-700-742-03	o	JACK NUT SCREWDRIVER
7-732-050-20	o	TENSION SCALE(50g FULL SCALE)
7-741-900-53	o	WIPING CLOTH
8-960-096-51	o	ALIGMENT TAPE, CR2-1B PS(PAL)
8-960-096-91	o	ALIGMENT TAPE, CR5-1B PS(PAL)
8-960-098-44	o	ALIGMENT TAPE, CR5-2A PS(PAL)
8-960-096-86	o	ALIGMENT TAPE, CR8-1B PS(PAL)
8-960-096-01	o	ALIGMENT TAPE, CR2-1B (NTSC)
8-960-096-41	o	ALIGMENT TAPE, CR5-1B (NTSC)
8-960-097-44	o	ALIGMENT TAPE, CR5-2A (NTSC)
8-960-097-45	o	ALIGMENT TAPE, CR8-1A (NTSC)
9-911-053-00	o	THICKNESS GAUGE
9-919-573-01	o	CLEANING FLUID

13−5. ELECTRICAL PARTS LIST (VIEW FINDER)

MAIN BOARD

Ref. No. or Q'ty		Part No.	SP	Description
1pc	⚠	1-589-128-31	o	MOUNTED CIRCUIT BOARD "MAIN"(UC, J)
1pc	⚠	1-589-128-41	o	MOUNTED CIRCUIT BOARD "MAIN"(EK)
1pc		9-904-867-01	s	CRT CONNECTOR
C1		9-904-850-01	s	CHIP TANTALUM 3.3uF 20% 16V
C2		9-904-851-01	s	CHIP TANTALUM 10uF 20% 16V
C3		1-164-004-11	s	CHIP CERAMIC 0.1uF 10% 25V
C4		1-164-004-11	s	CHIP CERAMIC 0.1uF 10% 25V
C5		1-135-091-00	s	CHIP TANTALUM 1uF 20% 16V
C6		1-130-481-00	s	FILM 0.0068uF 5% 50V
C7		9-904-851-01	s	CHIP TANTALUM 10uF 20% 16V
C8		1-130-479-00	s	FILM 0.0047uF 5% 50V
C9		1-135-091-00	s	CHIP TANTALUM 1uF 20% 16V
C10		1-130-487-00	s	FILM 0.022uF 5% 50V
C11		9-904-851-01	s	CHIP TANTALUM 10uF 20% 16V
C12		1-135-091-00	s	CHIP TANTALUM 1uF 20% 16V
C13		1-136-287-11	s	FILM 0.0047uF 5% 100V
C14		9-904-851-01	s	CHIP TANTALUM 10uF
C15		9-904-855-01	s	CHIP ELECT 100uF 20% 16V
C16		9-904-850-01	s	CHIP TANTALUM 3.3uF 20% 16V
C17		1-163-135-00	s	CHIP CERAMIC 560PF 5% 50V
C18		1-163-023-00	s	CHIP CERAMIC 0.015uF 10% 50V
C19		1-164-004-11	s	CHIP CERAMIC 0.1uF 10% 25V
C20		9-904-851-01	s	CHIP TANTALUM 10uF 20% 16V
C21		9-904-855-01	s	CHIP ELECT 100uF 20% 16V
C22		9-904-856-01	s	CHIP ELECT 220uF 20% 6.3V
C23		1-163-018-00	s	CHIP CERAMIC 5600PF 10% 50V
C24		9-904-851-01	s	CHIP TANTALUM 10uF 20% 16V
C25		1-163-125-00	s	CHIP CERAMIC 220PF 5% 50V
C26		9-904-853-01	s	CHIP CERAMIC 0.1uF 20% 100V
C27		1-163-135-00	s	CHIP CERAMIC 560PF 5% 50V
C30		1-164-004-11	s	CHIP CERAMIC 0.1uF 10% 25V
C31		1-164-004-11	s	CHIP CERAMIC 0.1uF 10% 25V
C32		9-904-852-01	s	CHIP TANTALUM 47uF 20% 16V
C33		1-163-125-00	s	CHIP CERAMIC 220PF 5% 50V
C34		1-164-232-11	s	CHIP CERAMIC 0.01uF 10% 50V
C35		1-163-243-11	s	CHIP CERAMIC 47PF 5% 50V
C36		1-164-004-11	s	CHIP CERAMIC 0.1uF 10% 25V
C37		1-164-004-11	s	CHIP CERAMIC 0.1uF 10% 25V
C38		1-164-004-11	s	CHIP CERAMIC 0.1uF 10% 25V
C39		1-164-004-11	s	CHIP CERAMIC 0.1uF 10% 25V
C40		1-136-289-11	s	FILM 5600P 5% 100V
		1-136-291-11	s	FILM 6800P 5% 100V
		1-136-292-11	s	FILM 7500P 5% 100V
		1-136-293-11	s	FILM 8200P 5% 100V
C41		1-164-004-11	s	CHIP CERAMIC 0.1uF 10% 25V
C42		9-904-854-01	s	CHIP CERAMIC 470PF 20% 2KV
C43		9-904-852-01	s	CHIP TANTALUM 47uF 20% 16V
C44		9-904-858-01	s	CHIP ELECT 27uF 20% 63V
C47		1-164-232-11	s	CHIP CERAMIC 0.01uF 10% 50V
C48		9-904-852-01	s	CHIP TANTALUM 47uF 20% 16V
C49		9-904-857-01	s	CHIP ELECT 22uF 20% 25V
CN1		1-564-710-11	o	PIN, CONNECTOR 8P
CN2		1-566-758-11	o	PIN, CONNECTOR 3P
CN3		1-564-707-11	o	PIN, CONNECTOR 5P
CN4		9-994-792-01	s	PIN, CONNECTOR 3P

(MAIN BOARD)

Ref. No. or Q'ty		Part No.	SP	Description
CN5		9-994-793-01	s	PIN, CONNECTOR 2P
CN6		1-691-423-11	s	CONNECTOR 11P, FEMALE
CN7		9-994-805-01	o	PIN, CONNECTOR 5P
CN8		9-904-865-01	o	HARNESS 3P
CP1	⚠	9-904-864-01	s	RES, FUSEBLE 2.2
D1		8-719-820-41	s	DIODE 1SS302
D2		8-719-941-09	s	DIODE DAP202U
D3		8-719-820-41	s	DIODE 1SS302
D4		8-719-976-56	s	DIODE RLS245
D5		8-719-941-09	s	DIODE DAP202U
D6		8-719-919-16	s	DIODE ESJA57-03
D7		8-719-941-09	s	DIODE DAP202U
D8		8-719-941-09	s	DIODE DAP202U
D9		8-719-941-09	s	DIODE DAP202U
D10		8-719-976-56	s	DIODE RLS245
D15		8-719-941-09	s	DIODE DAP202U
FBT	⚠	1-439-419-12	s	TRANSFORMER, FLYBACK
HLC		1-459-899-11	s	COIL, HORIZONTAL LINEARITY
IC1	⚠	8-759-300-28	s	IC HA11423MP
IC2		8-759-710-79	s	IC NJM2107F
IC3		8-759-209-57	s	IC TC4S69F
IC4		8-759-981-44	s	IC BA15218F-K
IC5		8-759-209-54	s	IC TC4S01F
IC6	⚠	8-759-095-59	s	IC M5237ML-TP2
Q1		9-904-849-01	s	TRANSISTOR 2SC4102
Q2		8-729-905-36	s	TRANSISTOR 2SC4081-S
Q3		8-729-905-36	s	TRANSISTOR 2SC4081-S
Q4		8-729-907-46	s	TRANSISTOR IMZ1
Q5		8-729-106-60	s	TRANSISTOR 2SB1115A-YQ
Q6		8-729-013-08	s	TRANSISTOR 2SK1113
Q7		8-729-013-08	s	TRANSISTOR 2SK1113
Q16		8-729-804-87	s	POWER TRANSISTOR 2SB1142-T
R1		1-216-841-11	s	RES, CHIP 47k 5% 1/16W
R2		1-216-841-11	s	RES, CHIP 47k 5% 1/16W
R3		1-216-830-11	s	RES, CHIP 5.6k 5% 1/16W
R4		1-216-809-11	s	RES, CHIP 100 5% 1/16W
R5		1-216-832-11	s	RES, CHIP 8.2k 5% 1/16W
R6		1-216-810-11	s	RES, CHIP 120 5% 1/16W
R7		1-216-843-11	s	RES, CHIP 68k 5% 1/16W
R8		1-216-834-11	s	RES, CHIP 12k 5% 1/16W
R9		1-216-810-11	s	RES, CHIP 120 5% 1/16W
R10		1-216-843-11	s	RES, CHIP 68k 5% 1/16W
R11		1-216-834-11	s	RES, CHIP 12k 5% 1/16W
R12		1-216-832-11	s	RES, CHIP 8.2k 5% 1/16W
R13	⚠	1-216-841-11	s	RES, CHIP 47k 5% 1/16W
R14	⚠	1-216-825-11	s	RES, CHIP 2.2k 5% 1/16W
R15		1-216-833-11	s	RES, CHIP 10k 5% 1/16W
R16		1-216-830-11	s	RES, CHIP 5.6k 5% 1/16W
R17		1-216-841-11	s	RES, CHIP 47k 5% 1/16W
R18		1-216-834-11	s	RES, CHIP 12k 5% 1/16W
R19		1-216-833-11	s	RES, CHIP 10k 5% 1/16W
R20		1-216-831-11	s	RES, CHIP 6.8k 5% 1/16W

(MAIN BOARD)

Ref.No. or Q'ty	Part No.	SP	Description
R21	1-216-821-11	s	RES, CHIP 1k 5% 1/16W
R22	1-216-839-11	s	RES, CHIP 33k 5% 1/16W
R23	1-216-827-11	s	RES, CHIP 3.3k 5% 1/16W
R24	1-216-829-11	s	RES, CHIP 4.7k 5% 1/16W
R25	1-216-308-00	s	RES, CHIP 4.7 5% 1/10W
R26	1-216-841-11	s	RES, CHIP 47k 5% 1/16W
R27	1-216-845-11	s	RES, CHIP 100k 5% 1/16W
R28	1-216-043-00	s	RES, CHIP 560 5% 1/10W
R29	1-216-033-00	s	RES, CHIP 220 5% 1/10W
R30	1-216-001-00	s	RES, CHIP 10 5% 1/10W
R31	1-216-308-00	s	RES, CHIP 4.7 5% 1/10W
R32	1-216-849-11	s	RES, CHIP 220k 5% 1/16W
R33	1-216-833-11	s	RES, CHIP 10k 5% 1/16W
R37 ⚠	1-218-305-11	s	RES, CHIP 22k 1% 1/16W
R38 ⚠	1-218-877-11	s	RES, CHIP 18k 1% 1/16W
R39	1-216-865-11	s	RES, CHIP 3k 5% 1/16W
R40	1-218-305-11	s	RES, CHIP 22k 1% 1/16W
R41 ⚠	1-218-305-11	s	RES, CHIP 22k 1% 1/16W
R42 ⚠	1-216-845-11	s	RES, CHIP 100k 5% 1/16W
R43	1-216-821-11	s	RES, CHIP 1k 5% 1/16W
R44	1-218-320-11	s	RES, CHIP 15k 1% 1/16W
R45	1-218-320-11	s	RES, CHIP 15k 1% 1/16W
R46	1-216-857-11	s	RES, CHIP 1M 5% 1/16W
R47	1-216-830-11	s	RES, CHIP 5.6k 5% 1/16W
R48	1-216-829-11	s	RES, CHIP 4.7k 5% 1/16W
R49	1-216-857-11	s	RES, CHIP 1M 5% 1/16W
R50	1-216-011-00	s	RES, CHIP 27 5% 1/10W
	1-216-012-00	s	RES, CHIP 30 5% 1/10W
	1-216-013-00	s	RES, CHIP 33 5% 1/10W
	1-216-014-00	s	RES, CHIP 36 5% 1/10W
	1-216-015-00	s	RES, CHIP 39 5% 1/10W
	1-216-016-11	s	RES, CHIP 43 5% 1/10W
	1-216-017-00	s	RES, CHIP 47 5% 1/10W
	1-216-018-00	s	RES, CHIP 51 5% 1/10W
R51	9-904-861-01	s	RES, CHIP 3.3M 1% 1/8W
R52	9-904-861-01	s	RES, CHIP 3.3M 1% 1/8W
R53	9-904-861-01	s	RES, CHIP 3.3M 1% 1/8W
R54	9-904-862-01	s	RES, CHIP 91k 1% 1/8W
R55	1-216-827-11	s	RES, CHIP 3.3k 5% 1/16W
R56	1-216-033-00	s	RES, CHIP 220 5% 1/10W
R57	1-216-025-00	s	RES, CHIP 100 5% 1/10W
R58	1-216-839-11	s	RES, CHIP 33k 5% 1/16W
R59	1-216-833-11	s	RES, CHIP 10k 5% 1/16W
R60	1-216-833-11	s	RES, CHIP 10k 5% 1/16W
R61	1-216-809-11	s	RES, CHIP 100 5% 1/16W
R62	1-216-813-11	s	RES, CHIP 220 5% 1/16W
R63 ⚠	9-904-859-01	s	RES, CHIP 27k 2% 1/16W
R64 ⚠	9-904-860-01	s	RES, CHIP 4.3k 2% 1/16W
R65	1-216-809-11	s	RES, CHIP 100 5% 1/16W
R66	1-216-830-11	s	RES, CHIP 5.6k 5% 1/16W
RV1	1-241-832-21	s	METAL 5k
RV2	1-241-832-21	s	METAL 5k
RV3	1-241-090-21	s	METAL 220
RV4	9-904-863-01	s	METAL 500
RV5 ⚠	1-241-832-21	s	METAL 5k
RV6	1-241-833-21	s	METAL 10k
RV7 ⚠	1-241-832-21	s	METAL 5k

SW BOARD

Ref.No. or Q'ty	Part No.	SP	Description
1pc	1-589-129-32	o	MOUNTED CIRCUIT BOARD "SW"
C50	9-904-844-01	s	CHIP TANTALUM 10uF 20% 16V
C51	9-904-845-01	s	CHIP TANTALUM 22uF 20% 10V
C52	1-163-239-11	s	CHIP CERAMIC 33PF 5% 50V
C53	9-904-844-01	s	CHIP TANTALUM 10uF 20% 16V
C54	1-163-239-11	s	CHIP CERAMIC 33PF 5% 50V
C55	1-163-243-11	s	CHIP CERAMIC 47PF 5% 50V
C56	1-163-125-00	s	CHIP CERAMIC 220PF 5% 50V
C57	9-904-846-01	s	CHIP TANTALUM 4.7uF 20% 10V
C58	1-164-232-11	s	CHIP CERAMIC 0.01uF 10% 50V
C59	1-164-346-11	s	CHIP CERAMIC 1uF 10% 16V
C60	9-904-844-01	s	CHIP TANTALUM 10uF 20% 16V
CN6	1-580-976-11	o	CONNECTOR, 9P MALE
DL1	1-406-729-21	s	DELAY LINE, LC (120nS)
D11	9-904-842-01	s	DIODE HZK4ALL
D12	8-719-820-41	s	DIODE 1SS302
D13	9-904-843-01	s	DIODE HZK9CL
D14	8-719-820-41	s	DIODE 1SS302
IC7	8-759-242-66	s	IC TC4W66F
L1	1-410-392-11	s	CHIP, INDUCTOR 82uH
LED1	9-994-802-11	s	LED SLH-56VT
Q8	8-729-907-26	s	TRANSISTOR IMX1
Q9	8-729-907-26	s	TRANSISTOR IMX1
Q10	8-729-907-26	s	TRANSISTOR IMX1
Q11	9-904-841-01	s	TRANSISTOR 2SC4102
Q12	9-904-841-01	s	TRANSISTOR 2SC4102
Q13	9-904-841-01	s	TRANSISTOR 2SC4102
Q14	8-729-927-87	s	TRANSISTOR 2SA1579RR
Q15	8-729-905-36	s	TRANSISTOR 2SC4081-S
R70	1-216-833-11	s	RES, CHIP 10k 5% 1/16W
R71	1-216-821-11	s	RES, CHIP 1k 5% 1/16W
R72	1-218-321-11	s	RES, CHIP 33k 1% 1/16W
R73	1-218-305-11	s	RES, CHIP 22k 1% 1/16W
R74	1-216-809-11	s	RES, CHIP 100 5% 1/16W
R75	1-216-827-11	s	RES, CHIP 3.3k 5% 1/16W
R76	1-216-289-11	s	RES, CHIP 510 5% 1/16W
R77	1-216-289-11	s	RES, CHIP 510 5% 1/16W
R78	1-216-289-11	s	RES, CHIP 510 5% 1/16W
R79	1-216-824-11	s	RES, CHIP 1.8k 5% 1/16W
R80	1-216-824-11	s	RES, CHIP 1.8k 5% 1/16W
R81	1-218-467-11	s	RES, CHIP 39k 1% 1/16W
R82	1-218-305-11	s	RES, CHIP 22k 1% 1/16W
R83	1-216-289-11	s	RES, CHIP 510 5% 1/16W
R84	1-216-809-11	s	RES, CHIP 100 5% 1/16W
R85	1-216-809-11	s	RES, CHIP 100 5% 1/16W
R86	1-218-312-11	s	RES, CHIP 470 1% 1/16W
R87	9-904-847-01	s	RES, CHIP 360 1% 1/16W
R88	1-216-289-11	s	RES, CHIP 510 5% 1/16W
R89	1-216-825-11	s	RES, CHIP 2.2k 5% 1/16W
R90	1-216-809-11	s	RES, CHIP 100 5% 1/16W
R91	1-216-829-11	s	RES, CHIP 4.7k 5% 1/16W
R92	1-216-809-11	s	RES, CHIP 100 5% 1/16W
R93	1-216-818-11	s	RES, CHIP 560 5% 1/16W
R94	1-216-825-11	s	RES, CHIP 2.2k 5% 1/16W

(SW BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R95	1-216-071-00	s	RES, CHIP 8.2k 5% 1/10W
R96	1-216-047-00	s	RES, CHIP 820 5% 1/10W
R97	1-216-073-00	s	RES, CHIP 10k 5% 1/10W
R98	1-218-697-11	s	RES, CHIP 1.6k 0.5% 1/16W
R99	1-216-842-11	s	RES, CHIP 56k 5% 1/16W
R100	1-216-839-11	s	RES, CHIP 33k 5% 1/16W
R101	1-216-840-11	s	RES, CHIP 39k 5% 1/16W
R102	1-216-133-00	s	RES, CHIP 3.3M 5% 1/10W
R103	1-218-083-00	s	RES, CHIP 27k 5% 1/10W
R104	1-218-292-11	s	RES, CHIP 20k 5% 1/16W
R105	1-216-821-11	s	RES, CHIP 1k 5% 1/16W
R106	1-216-833-11	s	RES, CHIP 10k 5% 1/16W
R107	1-216-829-11	s	RES, CHIP 4.7k 5% 1/16W
R108	1-216-833-11	s	RES, CHIP 10k 5% 1/16W
RV8	1-241-828-21	s	METAL, 500
RV9	1-241-741-11	s	METAL, 50k
RV10	1-230-075-00	s	CARBON, 2k "CONTRAST"
RV11	1-226-368-00	s	CARBON, 10k "BRIGHT"
S1	1-570-845-11	s	SLIDE "TALLY"
S2	1-570-845-11	s	SLIDE "PEAKING"

LED BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-589-127-11	o	MOUNTED CIRCUIT BOARD "LED"
1pc	9-994-810-01	o	LED PWB
CN9	9-994-809-01	o	CONNECTOR, 5P
LED2	8-719-800-25	s	LED TLR109A
LED3	8-719-800-25	s	LED TLR109A
LED4	8-719-800-25	s	LED TLR109A
LED5	8-719-800-19	s	LED TLO102A

FRAME

Ref. No. or Q'ty	Part No.	SP	Description
Q16	8-729-804-87	s	2SB1142-T (included in MAIN board)

PACKING MATERIALS

Ref. No. or Q'ty	Part No.	SP	Description
1pc	3-166-610-01	o	CARTON, INDIVIDUAL(J,UC)
1pc	3-166-612-01	o	CARTON, INDIVIDUAL(EK)
1pc	3-699-152-01	o	CUSHION, UPPER
1pc	3-699-153-03	o	CUSHION, LOWER

SECTION 14
CHANGED PARTS

NOTE: The numbers identified by marking with) are matching with each serial numbers. See the table matched with each serial numbers.

Mark	Serial No.	Model
311)	10031 and up	UC
401)	10201 and up	UC
	30101 and up	J
402)	10441 and up	UC
	30151 and up	J
	40101 and up	EK
405)	10756 and up	UC
	30471 and up	J
	41001 and up	EK
406)	10976 and up	UC
	30471 and up	J
	41211 and up	EK
407)	11236 and up	UC
	30491 and up	J
	41351 and up	EK
408)	11366 and up	UC
	30491 and up	J
	41801 and up	EK
409)	11576 and up	UC
	30521 and up	J
	42251 and up	EK
410)	11706 and up	UC
	30521 and up	J
	42601 and up	EK
411)	11786 and up	UC
	30521 and up	J
	42701 and up	EK
412)	11866 and up	UC
	30521 and up	J
	42961 and up	EK
501)	11866 and up	UC
	30521 and up	J
	43211 and up	EK
504)	11886 and up	UC
	30521 and up	J
	43451 and up	EK

AU-185/185P BOARD
----

408)	C21	1-162-306-11 s CERAMIC 0.01uF 20% 16V	--->	1-164-232-11 s CERAMIC, CHIP 0.01uF 10% 50V
408)	C22	1-162-306-11 s CERAMIC 0.01uF 20% 16V	--->	1-164-232-11 s CERAMIC, CHIP 0.01uF 10% 50V
411)	R142	1-216-653-11 s METAL, CHIP 1.2K 0.5% 1/10W	--->	1-216-656-11 s METAL, CHIP 1.6K 0.5% 1/10W ;For J,UC
411)	R242	1-216-653-11 s METAL, CHIP 1.2K 0.5% 1/10W	--->	1-216-656-11 s METAL, CHIP 1.6K 0.5% 1/10W ;For J,UC

CN-935 BOARD
----

408)	1pc	1-650-138-11 o PRINTE CIECUIT BOARD, CN-935	--->	1-650-138-12 o PRINTED CIRCUIT BOARD, CN-935

DC-62 BOARD
----

408)	C14	NOT IN USE.	--->	1-164-232-11 s CERAMIC, CHIP 0.01uF 10% 50V
408)	C18	NOT IN USE.	--->	1-164-232-11 s CERAMIC, CHIP 0.01uF 10% 50V
408)	C34	NOT IN USE.	--->	1-164-232-11 s CERAMIC, CHIP 0.01uF 10% 50V
408)	C38	NOT IN USE.	--->	1-164-232-11 s CERAMIC, CHIP 0.01uF 10% 50V
411)	C60	1-107-519-51 s ELECT 47uF 20% 50V	--->	1-111-111-11 s ELECT 56uF 20% 50V
501)	C60	1-111-111-11 s ELECT 56uF 20% 50V	--->	1-111-110-11 s ELECT 39uF 20% 50V
*1)	C61	1-107-519-51 s ELECT 47uF 20% 50V	--->	1-111-111-11 s ELECT 56uF 20% 50V

*1) Serial No. 11786 through 11865 ;UC
30521 through 30520 ;J
42701 through 43210 ;EK

501)	C61	1-111-111-11 s ELECT 56uF 20% 50V	--->	1-111-110-11 s ELECT 39uF 20% 50V
408)	C63	NOT IN USE.	--->	1-164-232-11 s CERAMIC, CHIP 0.01uF 10% 50V
408)	R23	NOT IN USE.	--->	1-216-085-00 s METAL, CHIP 33K 5% 1/10W
408)	R24	NOT IN USE.	--->	1-216-085-00 s METAL, CHIP 33K 5% 1/10W
408)	R42	NOT IN USE.	--->	1-216-085-00 s METAL, CHIP 33K 5% 1/10W
408)	R43	NOT IN USE.	--->	1-216-085-00 s METAL, CHIP 33K 5% 1/10W
408)	R58	NOT IN USE.	--->	1-216-085-00 s METAL, CHIP 33K 5% 1/10W

DC-63 BOARD

409) C103	NOT IN USE.	--->	1-135-085-21 s TANTALUM, CHIP 4.7uF 10% 25V
408) Q101	8-729-810-36 s TRANSISTOR 2SB1203-T	--->	8-729-927-83 s TRANSISTOR IRFU9020
408) R103	1-216-035-00 s METAL, CHIP 270 5% 1/10W	--->	1-216-041-00 s METAL, CHIP 470 5% 1/10W
408) R104	1-216-035-00 s METAL, CHIP 270 5% 1/10W	--->	1-216-041-00 s METAL, CHIP 470 5% 1/10W
311) R115	1-216-685-11 s METAL, CHIP 27K 0.5% 1/10W	--->	1-208-817-11 s METAL, CHIP 30K 0.50% 1/10W

ES-7(UC)/7(J)/7(P) BOARD

411) C63	1-135-210-11 s TANTALUM 4.7uF 10% 10V	--->	1-104-852-11 s TANTALUM, CHIP 22uF 20% 10V
411) D7	NOT IN USE.	--->	8-719-123-82 s DIODE 1SS303
411) L7	NOT IN USE.	--->	1-410-389-31 s INDUCTOR CHIP 47uH ;For EK
407) R27	1-218-672-11 s METAL 150 0.50% 1/16W	--->	1-218-829-11 s METAL, CHIP 180 0.50% 1/16W
411) R28	1-218-716-11 s METAL 10K 0.50% 1/16W	--->	DELETED. ;For EK
411) R48	1-218-704-11 s METAL, CHIP 2.7K 0.50% 1/16W	--->	1-218-702-11 s METAL, CHIP 2.7K 0.50% 1/16W
411) R108	1-218-706-11 s METAL 3.9K 0.50% 1/16W	--->	1-218-705-11 s METAL 3.6K 0.50% 1/16W
411) R110	1-218-734-11 s METAL, CHIP 56K 0.50% 1/16W	--->	1-218-889-11 s METAL, CHIP 56K 0.50% 1/16W
407) R193	1-216-825-11 s METAL, CHIP 2.2K 5% 1/16W	--->	1-216-821-11 s METAL, CHIP 1K 5% 1/16W ;For EK
411) R330	NOT IN USE.	--->	1-218-868-11 s METAL CHIP 7.5K 0.50% 1/16W
411) R331	NOT IN USE.	--->	1-216-864-11 s METAL, CHIP 0 5% 1/16W
411) S1	1-572-272-11 s SWITCH, SLIDE	--->	DELETED.

IE-33U/33UP BOARD

407) C088	1-124-779-00 s ELECT 10uF 20% 16V	--->	1-135-159-21 s TANTALUM, CHIP 10uF 10% 20V
407) C121	NOT IN USE.	--->	1-162-915-11 s CERAMIC, CHIP 10PF 5PF 50V
407) C122	NOT IN USE.	--->	1-162-915-11 s CERAMIC, CHIP 10PF 5PF 50V
407) IC13	8-759-031-84 s IC SC7S04F	--->	DELETED.
407) IC23	8-759-035-90 s IC SC7S02FEL	--->	8-759-925-72 s IC SN74HC02ANS
407) R076	1-218-697-11 s METAL, CHIP 1.6K 0.50% 1/16W	--->	DELETED.
407) R184	NOT IN USE.	--->	1-218-692-11 s METAL 1K 0.50% 1/16W
407) R185	NOT IN USE.	--->	1-216-864-11 s METAL, CHIP 0 5% 1/16W
407) R186	NOT IN USE.	--->	1-216-809-11 s METAL, CHIP 100 5% 1/16W
407) R187	NOT IN USE.	--->	1-216-809-11 s METAL, CHIP 100 5% 1/16W
407) R190	NOT IN USE.	--->	1-218-697-11 s METAL 1.6K 0.50% 1/16W
407) R193	NOT IN USE.	--->	1-216-864-11 s METAL, CHIP 0 5% 1/16W
407) R195	NOT IN USE.	--->	1-216-864-11 s METAL, CHIP 0 5% 1/16W
407) R197	NOT IN USE.	--->	1-216-864-11 s METAL, CHIP 0 5% 1/16W
407) R198	NOT IN USE.	--->	1-216-845-11 s METAL, CHIP 100K 5% 1/16W
407) RV18	NOT IN USE.	--->	1-238-088-11 s RES, ADJ, 2.2K

IF-454 BOARD

412) C87	1-135-161-21 s TANTALUM, CHIP 22uF 10% 10V	--->	1-104-852-11 s TANTALUM, CHIP 22uF 20% 10V
412) C92	1-135-161-21 s TANTALUM, CHIP 22uF 10% 10V	--->	1-104-852-11 s TANTALUM, CHIP 22uF 20% 10V
412) C99	NOT IN USE.	--->	1-104-852-11 s TANTALUM, CHIP 22uF 20% 10V
412) C100	NOT IN USE.	--->	1-104-852-11 s TANTALUM, CHIP 22uF 20% 10V
412) C101	NOT IN USE.	--->	1-163-113-00 s CERAMIC, CHIP 68PF 5% 50V
412) L3	1-408-781-00 s INDUCTOR CHIP 22uH	--->	DELETED.
412) L4	NOT IN USE.	--->	1-408-781-00 s INDUCTOR CHIP 22uH
412) L5	NOT IN USE.	--->	1-408-781-00 s INDUCTOR CHIP 22uH
412) Q83	NOT IN USE.	--->	8-729-120-28 s TRANSISTOR 2SC1623-L5L6
*2) R16	1-216-065-00 s METAL, CHIP 4.7K 5% 1/10W	--->	1-216-662-11 s METAL, CHIP 3K 0.5% 1/10W

*2) Serial No. 10201 through 11235 ;UC
30100 through 30490 ;J

407) R16	1-216-662-11 s METAL, CHIP 3K 0.5% 1/10W	--->	1-216-059-00 s METAL, CHIP 2.7K 5% 1/10W

(IF-454 BOARD)

407) R18 1-216-660-11 s METAL, CHIP 2.4K 0.5% 1/10W ---> 1-216-057-00 s METAL, CHIP 2.2K 5% 1/10W
407) R35 1-216-660-11 s METAL, CHIP 2.4K 0.5% 1/10W ---> 1-216-057-00 s METAL, CHIP 2.2K 5% 1/10W
407) R51 1-216-660-11 s METAL, CHIP 2.4K 0.5% 1/10W ---> 1-216-057-00 s METAL, CHIP 2.2K 5% 1/10W
407) R67 1-216-694-11 s METAL, CHIP 62K 0.5% 1/10W ---> 1-216-091-00 s METAL, CHIP 56K 5% 1/10W
407) R68 1-216-684-11 s METAL, CHIP 24K 0.50% 1/10W ---> 1-216-081-00 s METAL, CHIP 22K 5% 1/10W

407) R69 1-216-662-11 s METAL, CHIP 3K 0.5% 1/10W ---> 1-216-059-00 s METAL, CHIP 2.7K 5% 1/10W
407) R82 1-216-682-11 s METAL, CHIP 20K 0.5% 1/10W ---> 1-216-081-00 s METAL, CHIP 22K 5% 1/10W
407) R83 1-216-660-11 s METAL, CHIP 2.4K 0.5% 1/10W ---> 1-216-057-00 s METAL, CHIP 2.2K 5% 1/10W
407) R101 1-216-694-11 s METAL, CHIP 62K 0.5% 1/10W ---> 1-216-091-00 s METAL, CHIP 56K 5% 1/10W
407) R102 1-216-684-11 s METAL, CHIP 24K 0.50% 1/10W ---> 1-216-081-00 s METAL, CHIP 22K 5% 1/10W

407) R103 1-216-662-11 s METAL, CHIP 3K 0.5% 1/10W ---> 1-216-059-00 s METAL, CHIP 2.7K 5% 1/10W
407) R116 1-216-660-11 s METAL, CHIP 2.4K 0.5% 1/10W ---> 1-216-057-00 s METAL, CHIP 2.2K 5% 1/10W
407) R136 1-216-694-11 s METAL, CHIP 62K 0.5% 1/10W ---> 1-216-091-00 s METAL, CHIP 56K 5% 1/10W
407) R137 1-216-684-11 s METAL, CHIP 24K 0.50% 1/10W ---> 1-216-081-00 s METAL, CHIP 22K 5% 1/10W
407) R138 1-216-662-11 s METAL, CHIP 3K 0.5% 1/10W ---> 1-216-059-00 s METAL, CHIP 2.7K 5% 1/10W

407) R144 1-216-021-00 s METAL, CHIP 68 5% 1/10W ---> 1-216-623-11 s METAL, CHIP 68 0.5% 1/10W
407) R151 1-216-660-11 s METAL, CHIP 2.4K 0.5% 1/10W ---> 1-216-057-00 s METAL, CHIP 2.2K 5% 1/10W
407) R168 1-216-049-00 s METAL, CHIP 1K 5% 1/10W ---> 1-216-051-00 s METAL, CHIP 1.2K 5% 1/10W
*3) R196 1-216-057-00 s METAL, CHIP 2.2K 5% 1/10W ---> 1-216-295-91 s METAL, CHIP 0 5% 1/10W
*3) Serial No. 11236 through 11865 ;UC
30491 through 30520 ;J
41351 through 42960 ;EK
412) R196 1-216-295-91 s METAL, CHIP 0 5% 1/10W ---> DELETED.

407) R202 NOT IN USE. ---> 1-216-025-00 s METAL, CHIP 100 5% 1/10W

407) R203 NOT IN USE. ---> 1-216-025-00 s METAL, CHIP 100 5% 1/10W
407) R204 NOT IN USE. ---> 1-216-025-00 s METAL, CHIP 100 5% 1/10W
407) R205 NOT IN USE. ---> 1-216-057-00 s METAL, CHIP 2.2K 5% 1/10W
407) R206 NOT IN USE. ---> 1-216-057-00 s METAL, CHIP 2.2K 5% 1/10W
412) R207 NOT IN USE. ---> 1-216-651-11 s METAL, CHIP 1K 0.5% 1/10W

412) R209 NOT IN USE. ---> 1-208-806-11 s METAL, CHIP 10K 0.50% 1/10W
412) R210 NOT IN USE. ---> 1-216-651-11 s METAL, CHIP 1K 0.5% 1/10W
412) R212 NOT IN USE. ---> 1-208-806-11 s METAL, CHIP 10K 0.50% 1/10W
412) R213 NOT IN USE. ---> 1-216-097-00 s METAL, CHIP 100K 5% 1/10W
412) R214 NOT IN USE. ---> 1-216-073-00 s METAL, CHIP 10K 5% 1/10W

412) R216 NOT IN USE. ---> 1-208-806-11 s METAL, CHIP 10K 0.50% 1/10W
412) R217 NOT IN USE. ---> 1-208-806-11 s METAL, CHIP 10K 0.50% 1/10W
412) RV10 NOT IN USE. ---> 1-238-089-11 s RES, ADJ, 4.7K
412) RV11 NOT IN USE. ---> 1-238-089-11 s RES, ADJ, 4.7K

MB-506 BOARD

408) CN23 1-560-364-00 o CONNECTOR POST HEADER, ILG (2P) ---> 1-560-356-00 o CONNECTOR POST HEADER, ILG 2P
408) F31 1-532-780-21 s FUSE, MICRO (SECONDARY) ---> DELETED.
408) PS31 ⚠NOT IN USE. ---> 1-533-348-11 s RINK, CHIP IC
408) PS32 ⚠NOT IN USE. ---> 1-533-348-11 s RINK, CHIP IC

MB-530(N)/530(P) BOARD

407) C29 1-126-934-11 s ELECT 220uF 20% 16V ---> 1-104-666-11 s ELECT 220uF 20% 25V
407) C37 1-124-242-00 s ELECT 33uF 20% 25V ---> 1-126-397-11 s ELECT, CHIP 33uF 20% 25V
412) C64 1-131-341-00 s TANTALUM 0.1uF 10% 35V ---> 1-135-070-00 s TANTALUM, CHIP 0.1uF 10% 35V
407) C67 1-135-215-21 s TANTAL 6.8uF 20% 16V ---> 1-107-690-11 s TANTALUM 6.8uF 20% 35V
407) C71 1-131-341-00 s TANTALUM 0.1uF 10% 35V ---> 1-135-070-00 s TANTALUM, CHIP 0.1uF 10% 35V

407) C76 1-124-479-11 s ELECT 330uF 20% 25V ---> 1-126-940-11 s ELECT 330uF 20% 25V
504) R36 1-216-049-91 s METAL, CHIP 1K 5% 1/10W ---> 1-216-043-91 s METAL, CHIP 560 5% 1/10W

PA-137C/137CP BOARD

410)	IC2	8-759-031-84 s IC SC7S04F	--->	8-759-271-86 s IC TC7SH04FU
410)	IC3	8-759-031-84 s IC SC7S04F	--->	8-759-271-86 s IC TC7SH04FU
410)	R17	1-216-801-11 s METAL 22 0.50% 1/16W	--->	DELETED.
410)	R19	NOT IN USE.	--->	1-216-864-11 s METAL, CHIP 0 5% 1/16W

PR-208 BOARD

407)	C58	1-135-177-21 s TANTALUM, CHIP 1uF 10% 25V	--->	1-135-145-11 s TANTALUM, CHIP 0.47uF 10% 35V
407)	C64	1-135-177-21 s TANTALUM, CHIP 1uF 10% 25V	--->	1-135-145-11 s TANTALUM, CHIP 0.47uF 10% 35V
407)	C67	1-135-177-21 s TANTALUM, CHIP 1uF 10% 25V	--->	1-135-145-11 s TANTALUM, CHIP 0.47uF 10% 35V
407)	C131	1-131-379-00 s TANTALUM, 22uF 10% 10V	--->	1-135-161-21 s TANTALUM, CHIP 22uF 10% 10V
407)	C142	NOT IN USE.	--->	1-135-145-11 s TANTALUM, CHIP 0.47uF 10% 35V
407)	C143	NOT IN USE.	--->	1-135-145-11 s TANTALUM, CHIP 0.47uF 10% 35V
407)	C144	NOT IN USE.	--->	1-135-145-11 s TANTALUM, CHIP 0.47uF 10% 35V
407)	R253	1-218-257-11 s METAL, CHIP 4.99K 0.50% 1/10W	--->	1-216-667-11 s METAL, CHIP 4.7K 0.5% 1/10W
407)	R254	1-218-254-11 s METAL, CHIP 2.55K 0.50% 1/10W	--->	1-216-660-11 s METAL, CHIP 2.4K 0.5% 1/10W
407)	R255	1-218-259-11 s METAL, CHIP 13.7K 0.50% 1/10W	--->	1-216-677-11 s METAL, CHIP 12K 0.5% 1/10W
407)	R256	1-216-821-11 s METAL, CHIP 1K 5% 1/16W	--->	1-216-864-11 s METAL, CHIP 0 5% 1/16W
407)	R257	1-218-840-11 s METAL, CHIP 510 0.50% 1/16W	--->	1-218-679-91 s METAL 300 0.50% 1/16W
407)	R258	1-218-838-11 s METAL, CHIP 430 0.50% 1/16W	--->	1-218-677-11 s METAL 240 0.50% 1/16W
407)	R271	1-218-257-11 s METAL, CHIP 4.99K 0.50% 1/10W	--->	1-208-800-11 s METAL, CHIP 5.6K 0.50% 1/10W
407)	R272	1-218-254-11 s METAL, CHIP 2.55K 0.50% 1/10W	--->	1-216-661-11 s METAL, CHIP 2.7K 0.5% 1/10W
407)	R279	1-218-254-11 s METAL, CHIP 2.55K 0.50% 1/10W	--->	1-216-659-11 s METAL, CHIP 2.2K 0.5% 1/10W
407)	R280	1-218-259-11 s METAL, CHIP 13.7K 0.50% 1/10W	--->	1-208-810-11 s METAL, CHIP 15K 0.50% 1/10W
407)	R296	NOT IN USE.	--->	1-216-649-11 s METAL, CHIP 820 0.5% 1/10W
407)	R297	NOT IN USE.	--->	1-216-699-11 s METAL, CHIP 100K 0.5% 1/10W
407)	R298	NOT IN USE.	--->	1-208-824-11 s METAL, CHIP 56K 0.50% 1/10W
407)	R299	NOT IN USE.	--->	1-216-687-11 s METAL, CHIP 33K 0.5% 1/10W

SS-57/57A BOARD

408)	C228	1-126-630-11 s ELECT 82uF 20% 25V	--->	1-126-941-11 s ELECT 470uF 20% 25V
408)	C262	NOT IN USE.	--->	1-126-943-11 s ELECT 2200uF 20% 25V
408)	C424	NOT IN USE.	--->	1-163-038-11 s CERAMIC CHIP 0.1uF 25V0%
408)	D406	NOT IN USE.	--->	8-719-800-76 s DIODE 1SS226
408)	L207	1-410-626-11 s COIL, CHOKE 47uH	--->	1-424-517-11 s COIL, CHOKE 200uH
408)	R91	1-216-845-11 s METAL, CHIP 100K 5% 1/16W	--->	DELETED.
408)	R92	1-216-821-11 s METAL, CHIP 1K 5% 1/16W	--->	DELETED.
408)	R244	1-216-849-11 s METAL, CHIP 220K 5% 1/16W	--->	1-216-845-11 s METAL, CHIP 100K 5% 1/16W
408)	R458	NOT IN USE.	--->	1-216-821-11 s METAL, CHIP 1K 5% 1/16W
408)	R459	NOT IN USE.	--->	1-216-821-11 s METAL, CHIP 1K 5% 1/16W

TC-86/86A BOARD

405)	C24	NOT IN USE.	--->	1-126-390-11 s ELECT, CHIP 22uF 20% 6.3V
405)	C25	NOT IN USE.	--->	1-164-360-11 s CERAMIC 0.1uF 16V
405)	C902	NOT IN USE.	--->	1-162-995-11 s CERAMIC, CHIP 0.022uF 50V
405)	C920	1-161-055-00 s CERAMIC 0.022uF 10% 50V	--->	DELETED.
405)	D5	8-719-105-91 s DIODE RD5.6M-B2	--->	8-719-105-90 s DIODE RD5.6M-B1
405)	L4	NOT IN USE.	--->	1-410-369-11 s INDUCTOR CHIP 1UH
405)	R54	1-216-845-11 s METAL, CHIP 100K 5% 1/16W	--->	1-216-837-11 s METAL, CHIP 22K 5% 1/16W
405)	R55	1-216-845-11 s METAL, CHIP 100K 5% 1/16W	--->	1-216-837-11 s METAL, CHIP 22K 5% 1/16W
405)	R89	NOT IN USE.	--->	1-216-797-11 s METAL, CHIP 10 5% 1/16W
405)	R320	NOT IN USE.	--->	1-216-813-11 s METAL, CHIP 220 5% 1/16W

(TC-86/86A BOARD)

405)	R420	NOT IN USE.	--->	1-216-813-11 s METAL, CHIP 220 5% 1/16W
401)	R738	NOT IN USE.	--->	1-216-838-11 s METAL, CHIP 27K 5% 1/16W
401)	R742	1-218-671-11 s METAL, CHIP 150 0.50% 1/16W	--->	1-218-672-11 s METAL 150 0.50% 1/16W
405)	R826	1-247-879-11 s CARBON 100K 5% 1/4W	--->	1-216-845-11 s METAL, CHIP 100K 5% 1/16W
402)	R833	1-218-704-11 s METAL, CHIP 3.3K 0.5% 1/16W	--->	1-218-858-11 s METAL, CHIP 3K 5% 1/16W ;For EK
405)	R849	NOT IN USE.	--->	1-220-158-91 s METAL 3.6K 5% 1/16W
405)	R881	NOT IN USE.	--->	1-216-845-11 s METAL, CHIP 100K 5% 1/16W
405)	R882	NOT IN USE.	--->	1-216-845-11 s METAL, CHIP 100K 5% 1/16W
405)	R883	NOT IN USE.	--->	1-216-845-11 s METAL, CHIP 100K 5% 1/16W
405)	R884	NOT IN USE.	--->	1-216-821-11 s METAL, CHIP 1K 5% 1/16W
405)	R885	NOT IN USE.	--->	1-216-833-11 s METAL, CHIP 10K 5% 1/16W
405)	R886	NOT IN USE.	--->	1-216-845-11 s METAL, CHIP 100K 5% 1/16W
405)	R887	NOT IN USE.	--->	1-216-845-11 s METAL, CHIP 100K 5% 1/16W
405)	R888	NOT IN USE.	--->	1-216-845-11 s METAL, CHIP 100K 5% 1/16W
405)	R889	NOT IN USE.	--->	1-216-845-11 s METAL, CHIP 100K 5% 1/16W
405)	R890	NOT IN USE.	--->	1-216-845-11 s METAL, CHIP 100K 5% 1/16W
405)	R891	NOT IN USE.	--->	1-216-821-11 s METAL, CHIP 1K 5% 1/16W
405)	R893	NOT IN USE.	--->	1-216-864-11 s METAL, CHIP 0 5% 1/16W
405)	R897	NOT IN USE.	--->	1-216-845-11 s METAL, CHIP 100K 5% 1/16W
405)	R898	NOT IN USE.	--->	1-216-845-11 s METAL, CHIP 100K 5% 1/16W
405)	R899	NOT IN USE.	--->	1-216-845-11 s METAL, CHIP 100K 5% 1/16W
405)	R913	1-247-879-11 s CARBON 100K 5% 1/4W	--->	1-216-845-11 s METAL, CHIP 100K 5% 1/16W
405)	R926	1-218-734-11 s METAL, CHIP 56K 0.50% 1/16W	--->	1-216-861-11 s METAL 2.2M 5% 1/16W
405)	R933	1-216-853-11 s METAL, CHIP 470K 5% 1/16W	--->	1-216-838-11 s METAL, CHIP 27K 5% 1/16W
405)	R991	1-247-807-11 s CARBON 100 5% 1/4W	--->	1-216-809-11 s METAL, CHIP 100 5% 1/16W
405)	RB1	1-231-557-00 s RESISTOR BLOCK 100Kx4	--->	DELETED.

VO-46/46A BOARD

----

411)	C127	1-162-921-11 s CERAMIC, CHIP 33PF 5% 50V	--->	1-164-456-11 s CERAMIC 24PF 5% 50V
411)	C128	1-164-386-11 s CERAMIC 200PF 5% 50V	--->	1-164-218-11 s CERAMIC 180PF 5% 50V
406)	C143	1-135-157-21 s TANTALUM, CHIP 10uF 10% 6.3V	--->	DELETED.
406)	CV201	1-141-345-11 s CAP, TRIMMER 40PF	--->	DELETED.
406)	CV202	1-141-345-11 s CAP, TRIMMER 40PF	--->	DELETED.
406)	CV203	1-141-345-11 s CAP, TRIMMER 40PF	--->	DELETED.
406)	CV601	1-141-322-11 s CAP, VAR TRIMMER CHIP	--->	DELETED.
406)	CV602	1-141-322-11 s CAP, VAR TRIMMER CHIP	--->	DELETED.
406)	CV603	1-141-322-11 s CAP, VAR TRIMMER CHIP	--->	DELETED.
406)	Q203	8-729-118-58 s TRANSISTOR 2SK852-X4	--->	DELETED.
406)	Q204	8-729-118-58 s TRANSISTOR 2SK852-X4	--->	DELETED.
406)	Q205	8-729-118-58 s TRANSISTOR 2SK852-X4	--->	DELETED.
406)	Q206	8-729-118-58 s TRANSISTOR 2SK852-X4	--->	DELETED.
406)	Q603	8-729-118-58 s TRANSISTOR 2SK852-X4	--->	DELETED.
406)	Q604	8-729-118-58 s TRANSISTOR 2SK852-X4	--->	DELETED.
406)	Q605	8-729-118-58 s TRANSISTOR 2SK852-X4	--->	DELETED.
406)	Q606	8-729-118-58 s TRANSISTOR 2SK852-X4	--->	DELETED.
401)	R126	1-218-837-11 s METAL, CHIP 390 0.50% 1/16W	--->	1-218-834-11 s METAL, CHIP 300 0.50% 1/16W ;For J,UC
401)	R134	1-218-688-11 s METAL, CHIP 680 0.50% 1/16W	--->	1-218-842-11 s METAL, CHIP 620 0.50% 1/16W ;For J,UC
406)	R178	1-218-736-11 s METAL 68K 0.50% 1/16W	--->	DELETED.
406)	R179	1-218-848-11 s METAL CHIP 1.1K 0.50% 1/16W	--->	DELETED.
406)	R180	1-218-692-11 s METAL 1K 0.50% 1/16W	--->	DELETED.
406)	R181	1-218-710-11 s METAL, CHIP 5.6K 0.50% 1/16W	--->	DELETED.
406)	R222	1-216-845-11 s METAL, CHIP 100K 5% 1/16W	--->	DELETED.
406)	R224	1-216-845-11 s METAL, CHIP 100K 5% 1/16W	--->	DELETED.

(VO-46/46A BOARD)

406)	R225	1-218-724-11 s METAL 22K 0.50% 1/16W	--->	DELETED.
406)	R226	1-216-845-11 s METAL, CHIP 100K 5% 1/16W	--->	DELETED.
406)	R227	1-218-724-11 s METAL 22K 0.50% 1/16W	--->	DELETED.
406)	R228	1-216-845-11 s METAL, CHIP 100K 5% 1/16W	--->	DELETED.
406)	R229	1-218-724-11 s METAL 22K 0.50% 1/16W	--->	DELETED.
411)	R406	1-216-821-11 s METAL, CHIP 1K 5% 1/16W	--->	1-216-833-11 s METAL, CHIP 10K 5% 1/16W
401)	R422	1-218-724-11 s METAL 22K 0.50% 1/16W	--->	1-218-727-11 s METAL 30K 0.50% 1/16W ;For J,UC
410)	R425	1-218-708-11 s METAL 4.7k 0.50% 1/16W	--->	1-218-700-11 s METAL 2.2K 0.50% 1/16W ;For EK
401)	R427	1-218-870-11 s METAL, CHIP 9.1K 0.50% 1/16W	--->	1-218-851-11 s METAL, CHIP 1.5K 0.50% 1/16W ;For J,UC
401)	R428	1-218-707-11 s METAL 4.3K 0.50% 1/16W	--->	1-218-706-11 s METAL 3.9K 0.50% 1/16W ;For J,UC
401)	R561	1-218-694-11 s METAL 1.2K 0.50% 1/16W	--->	1-218-851-11 s METAL, CHIP 1.5K 0.50% 1/16W ;For J,UC
401)	R562	1-218-694-11 s METAL 1.2K 0.50% 1/16W	--->	1-218-692-11 s METAL 1K 0.50% 1/16W ;For J,UC
406)	R620	1-216-845-11 s METAL, CHIP 100K 5% 1/16W	--->	DELETED.
406)	R622	1-216-845-11 s METAL, CHIP 100K 5% 1/16W	--->	DELETED.
406)	R623	1-216-837-11 s METAL, CHIP 22K 5% 1/16W	--->	DELETED.
406)	R624	1-216-845-11 s METAL, CHIP 100K 5% 1/16W	--->	DELETED.
406)	R625	1-216-837-11 s METAL, CHIP 22K 5% 1/16W	--->	DELETED.
406)	R626	1-216-845-11 s METAL, CHIP 100K 5% 1/16W	--->	DELETED.
406)	R627	1-216-837-11 s METAL, CHIP 22K 5% 1/16W	--->	DELETED.
406)	RV201	1-238-089-11 s RES, ADJ, 4.7K	--->	DELETED.
406)	RV202	1-238-089-11 s RES, ADJ, 4.7K	--->	DELETED.
406)	RV203	1-238-089-11 s RES, ADJ, 4.7K	--->	DELETED.
406)	RV601	1-238-089-11 s RES, ADJ, 4.7K	--->	DELETED.
406)	RV602	1-238-089-11 s RES, ADJ, 4.7K	--->	DELETED.
406)	RV603	1-238-089-11 s RES, ADJ, 4.7K	--->	DELETED.
401)	RV850	1-238-088-11 s RES, ADJ, 2.2K	--->	1-238-240-11 s RES, ADJ, 220
411)	TH400	NOT IN USE.	--->	1-809-308-21 s THERMISTER (CHIP) ;For EK